The Growing National College Degree Emergency

*Dual Credit and ECHS: Critical Emerging Strategies*

Joseph A. Rochford, Ph.D.
Vice President - Stark Education Partnership
• If we accept the premise that the United States is part of a global information age economy where higher education is more critical than ever before…
Fact

• The fact is that we are losing ground in the production of graduates.
• In terms of sheer numbers of degrees we will soon be outpaced.
• We may well be on the verge of losing our economic superiority in the world.
Reality

- In 2001, India graduated almost a million more students from college than the United States did. China graduates twice as many students with bachelor’s degrees as the U.S., and they have six times as many graduates majoring in engineering.

In the international competition to have the biggest and best supply of knowledge workers, America is falling behind. – Bill Gates
Why This Doesn’t Seem a Problem Today

How can the United States’ mediocre educational standing in the world be reconciled with its economic success in the high-tech global economy?

The answer is that (we) may not have, on average, the world’s best stock of skills, but it is pretty good and because of its size, it has more top students. For instance, the United States’ population is roughly four times the size of that of France, Italy, and the United Kingdom, and three times the size of Germany.
Why is Dual Credit and ECHS Important?

• The global, national, state and local context for dual credit
We Have Growing International Competition

- At the Lisbon European Council in March 2000, government leaders set the EU a 10-year mission to become the most competitive and dynamic knowledge-based economy in the world, capable of sustained economic growth with more and better jobs and greater social cohesion. – EU Education web site: http://europa.eu.int/comm/education/policies
Europe’s College Degree Solution

- With slow population growth, bring nations together potentially outpacing (with a base of 450 million persons) the U.S. in production of degrees.
The EU Challenge to the U.S.
40 Nations in a Common Higher Education Area

The Committee of the Convention on the Recognition of Qualifications concerning Higher Education in the European Region

RECOMMENDATION ON THE RECOGNITION OF JOINT DEGREES

Adopted on 9 June 2004
While We Argue About Articulation in a Single State …

“Erasmus Mundus: an additional 69 universities join the programme” - EU Press Release

- Europe: common courses and degree programs across national lines (Bologna Process)

- Import students and scholars: “additional funds (€57.3 million) … have been earmarked for the programme’s scholarship scheme in order to allow for additional scholarships for students coming from specific Asian countries (China, India, Thailand, Malaysia and other Asian countries)

- Be in direct competition to U.S. Higher Education
The European Realization

The US economy, building on the emergence of the so-called ‘new’ knowledge economy and its leadership in information and communication technologies (ICTs), had begun to outperform all but the very best of the individual European economies.

Europe, if it wished to protect its particular social model and continue to offer its citizens opportunity, jobs and quality of life, had to act with determination — particularly in the context of the mounting economic challenge from Asia and the slowdown of European population growth.

— EU (2004) Facing the challenge: The Lisbon strategy for growth and employment
Asia: An Even Larger Challenge

India’s Growth

• India: Colleges for Professional Education:
  1950-1951  208
  2001-2002  2,409

• India: Colleges for General Education
  1950-1951  370
  2001-2002  8,737

• India: Universities
  1950-1951  27
  2001-2002  272
India: Outpacing the U.S.

Far into the Future on Enrollment Growth

- 1950-51 school year, there were some 360,000 students enrolled in colleges and universities; today the number had risen to 9.28 million, an increase twenty-five times over in five decades. – Source: India Together

- U.S.  
  1998- 13.1 million  
  2000- 15.3 million  
  2013 - 18.2 (projected) – IPEDS
India’s Growth?

• If India sustains the same growth rate, it will equal U.S. Higher Education Enrollment by 2013, then continue to surpass the United States.

• The largest number of “low paid” and often unemployed college graduates in the world is in India, i.e. graduates from their “general studies” colleges.

• We are already loosing mid level jobs to these graduates in India and the trend is just beginning
“Why to India? Why is India so well positioned for this? It's a lot of reasons that have come together. One is very simple. You have a huge number of educated people who speak English…Accent neutralization class is very popular in Bangalore today, you know, because you have all ... young men and women basically selling credit cards, tracing your lost luggage on Delta Airlines, and also providing tech support for big American computer companies from IBM to Microsoft and whatnot.”
Sheer Numbers: A Compelling Argument

- **India Population**: 1,065,070,607 (July 2004 est.)
- **U.S. Population**: 293,027,571 (July 2004 est.)
- **EU H.Ed. Area**: 450,000,000 (est.)
- **China Population**: 1,298,847,624 (July 2004 est.)
The Emerging Asian Education Forum:  
A Snapshot from the China Scholarship Council

Present: Former President of Philippines - Fidel V. Ramos  
Former Premier of Korea - Lee Soo Sung  
Former PM of Nepal - Kirti Nidhi Bista  
Former Premier, New Zealand - Ms.Jenny Shipley  
Delegate of Former PM of Kazakstan - Sadykhan Bekbergenoy  
Director, UNESCO Bangkok, Asia & Pacific Regional Bureau for Education - Sheldon Shaeffer  
Chairman of Macao Foundation - Vitor Ng  
Vice Minister of Ministry Education in China - Zhang Xinsheng  
Director General of the Department of International Cooperation and Exchange, MOE- Cao Guoxing  
Secretary General of China Scholarship Council - Li Wangrong

The Meeting was focused on the development and cooperation of education in Asia. The Proposal passed by the meeting called on the joint effort made by all Asian countries to improve their cooperation in education to meet the global challenges in talents and personnel.
China: Not to Be Outpaced

• There has been rapid growth in the number of children attending school and the study attributes this to the jump in the average increase in annual income expected for each extra year of schooling. The rate was around 4% in the late 80s, but is now averaging closer to 10%. There are even higher gains for technical school education and college education. So China now has an army of smarter workers and it is growing: there are now 132 million students in senior high school, up from 51 million in 1995. The number of university graduates has doubled to 1.9 million a year, and is expected to double again by 2008. – Financial Times.com
Climbing Relative GDP’s

GDP by Major Countries and the EU: 2000 and 2015

Billions of 1990 USD (purchasing power parity)

Source: CIA’s Long-Term Growth Model.
• Does the EU, China, or India have ECHS or Dual Credit?
• No
• America is the One who Now Needs to Maximize Its Human Potential
• Sadly, It’s Not Happening under the Current System
The Findings to Which Our Political Leaders are Increasingly Paying Attention

- First University Degrees in Science and Mathematics.

- In 1999, the United States awarded a smaller percentage of first university degrees in science than Canada, France, Germany, and the United Kingdom. About 10 percent of all first university degrees awarded in science in the United States were in mathematics and statistics—the lowest percentage of the five countries presented.
The Findings to Which Our Political Leaders are Increasingly Paying Attention

Graduation Rates Have Dropped Over Past 20 Years

Public High School Graduation Rates 1981 to 2002

Graduation Rate (%)

64 66 68 70 72 74 76

81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02

2005 National Education Summit on High Schools
# U.S. A Trailing HS Graduation Rate on an International Basis

United States Trails Most Countries in High School Graduation Rate

<table>
<thead>
<tr>
<th>Rank</th>
<th>OECD Reporting Country</th>
<th>Graduation Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Denmark</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Norway</td>
<td>97</td>
</tr>
<tr>
<td>3</td>
<td>Germany</td>
<td>93</td>
</tr>
<tr>
<td>4</td>
<td>Japan</td>
<td>92</td>
</tr>
<tr>
<td>5</td>
<td>Poland</td>
<td>90</td>
</tr>
<tr>
<td>6</td>
<td>Switzerland</td>
<td>90</td>
</tr>
<tr>
<td>7</td>
<td>Finland</td>
<td>85</td>
</tr>
<tr>
<td>7</td>
<td>Greece</td>
<td>85</td>
</tr>
<tr>
<td>9</td>
<td>France</td>
<td>82</td>
</tr>
<tr>
<td>9</td>
<td>Hungary</td>
<td>82</td>
</tr>
<tr>
<td>9</td>
<td>Italy</td>
<td>82</td>
</tr>
<tr>
<td>12</td>
<td>Czech Republic</td>
<td>81</td>
</tr>
<tr>
<td>13</td>
<td>Belgium</td>
<td>79</td>
</tr>
<tr>
<td>13</td>
<td>Iceland</td>
<td>79</td>
</tr>
<tr>
<td>15</td>
<td>Ireland</td>
<td>77</td>
</tr>
<tr>
<td>16</td>
<td>United States</td>
<td>73</td>
</tr>
<tr>
<td>17</td>
<td>Sweden</td>
<td>72</td>
</tr>
<tr>
<td>18</td>
<td>Luxembourg</td>
<td>68</td>
</tr>
<tr>
<td>18</td>
<td>Spain</td>
<td>68</td>
</tr>
<tr>
<td>20</td>
<td>Slovak Republic</td>
<td>61</td>
</tr>
</tbody>
</table>

Falling College Graduation Rate Relative to Developed Countries

<table>
<thead>
<tr>
<th>OECD Member Countries</th>
<th>Graduation Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Japan</td>
<td>94</td>
</tr>
<tr>
<td>2. Turkey</td>
<td>88</td>
</tr>
<tr>
<td>3. Ireland</td>
<td>85</td>
</tr>
<tr>
<td>4. United Kingdom</td>
<td>83</td>
</tr>
<tr>
<td>5. Korea</td>
<td>79</td>
</tr>
<tr>
<td>6. Spain</td>
<td>77</td>
</tr>
<tr>
<td>7. Finland</td>
<td>75</td>
</tr>
<tr>
<td>8. Iceland</td>
<td>73</td>
</tr>
<tr>
<td>9. Germany</td>
<td>70</td>
</tr>
<tr>
<td>10. Mexico</td>
<td>69</td>
</tr>
<tr>
<td>10. Australia</td>
<td>69</td>
</tr>
<tr>
<td>10. Denmark</td>
<td>69</td>
</tr>
<tr>
<td>10. Netherlands</td>
<td>69</td>
</tr>
<tr>
<td>14. United States</td>
<td>66</td>
</tr>
<tr>
<td>15. Czech Republic</td>
<td>61</td>
</tr>
<tr>
<td>16. Belgium (FI)</td>
<td>60</td>
</tr>
<tr>
<td>17. Austria</td>
<td>59</td>
</tr>
<tr>
<td>17. France</td>
<td>59</td>
</tr>
<tr>
<td>19. Sweden</td>
<td>48</td>
</tr>
<tr>
<td>20. Italy</td>
<td>42</td>
</tr>
</tbody>
</table>

Ohio and Stark County: Falling Behind the Nation

Table I
National, State, and Stark County Education Attainment Levels*

<table>
<thead>
<tr>
<th>Education Attainment Level</th>
<th>U.S.</th>
<th>Ohio.</th>
<th>Stark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some College, No Degree</td>
<td>21.0%</td>
<td>19.9%</td>
<td>18.9%</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>6.3%</td>
<td>5.9%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>15.5%</td>
<td>13.7%</td>
<td>11.9%</td>
</tr>
<tr>
<td>Graduate or Professional Degree</td>
<td>8.9%</td>
<td>7.4%</td>
<td>6.1%</td>
</tr>
</tbody>
</table>

Percent age 25 and over at each level
Our Deficit in Persons

### Table II
**U.S. and Stark County Averages by Level (age 25 and over)**

<table>
<thead>
<tr>
<th>Degree</th>
<th>2000 U.S. Avg</th>
<th>2000 Stark Avg</th>
<th>Deficit in Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some College, No Degree</td>
<td>21.0%</td>
<td>18.9%</td>
<td>5,312</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>6.3%</td>
<td>5.3%</td>
<td>2,530</td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>15.3%</td>
<td>11.9%</td>
<td>9,106</td>
</tr>
<tr>
<td>Graduate Degree</td>
<td>8.9%</td>
<td>6.1%</td>
<td>7,083</td>
</tr>
<tr>
<td><strong>Total Deficit All Levels</strong></td>
<td></td>
<td></td>
<td><strong>24,031</strong></td>
</tr>
</tbody>
</table>

### Table III
**Ohio and Stark County Averages by Level (age 25 and over)**

<table>
<thead>
<tr>
<th>Degree</th>
<th>2000 Ohio Avg</th>
<th>2000 Stark Avg</th>
<th>Deficit in Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some College, No Degree</td>
<td>19.9%</td>
<td>18.9%</td>
<td>2,530</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>5.9%</td>
<td>5.3%</td>
<td>1,518</td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>13.7%</td>
<td>11.9%</td>
<td>4,048</td>
</tr>
<tr>
<td>Graduate Degree</td>
<td>7.4%</td>
<td>6.1%</td>
<td>3,289</td>
</tr>
<tr>
<td><strong>Total Deficit All Levels</strong></td>
<td></td>
<td></td>
<td><strong>11,385</strong></td>
</tr>
</tbody>
</table>
Enrollment is Not Necessarily the Problem
... Graduation is..

Fall 1998 Cohort of First-Time, Full-Time, Degree-Seeking Students at 2-Year Public Campuses

Five-Year Outcomes

- Did Not Earn a Degree / Not Persisting 40%
- Persisting 21%
- Earned a Degree or Certificate 39%

Degree/Certificate Outcomes
- Associate Degree 66%
- Bachelor's Degree 32%
- Other 7%

FY 2003 Enrollment Destinations of Persisting Students
- Public 2-Year 18%
- Public 4-Year 34%
- Same Institution 41%
- Independent 7%
An Added Dilemma: 
*For Colleges and Universities Economics Will Never be the Same Again*

- Even with the decline in state revenues and private giving, that still left the old, “wait-out-the-storm” standby solution: increasing tuition. Double-digit percentage increases have become the norm, and even larger increases and surcharges are not uncommon. This time, though, even that solution has come up cold. First of all, large though they may be, these increases rarely cover half of the loss of state revenue. Secondly, the days of silent assent may be over. Governors grumble about tuition increases … – *Stephen R. Portch (2004)*
An Added Dilemma:  
*For Colleges and Universities Economics Will Never be the Same Again*

• Finally, I challenge our state colleges and universities to keep tuition increases to a minimum by becoming more productive and more collaborative. To that end, our budget will propose an annual tuition cap of 6 percent, to be exceeded only for the purpose of funding needs-based scholarships. – Bob Taft February 8, 2005
Emerging High Visibility National Recommendations

- The National Governors Association has identified ten steps governors can take to quickly put states on the path to redesign their high schools. These steps will hopefully lead many states to system-wide reform, so that “Redesigning the American High School” becomes a national reality.

- Expand college-level learning opportunities in high school to minorities, English language learners, low-income students and youth with disabilities. Data indicates these students are less likely to take Advanced Placement courses, enroll in college courses while still in high school or sit for industry recognized certification exams. States can increase AP course enrollment in low-performing high schools; adopt or expand dual-enrollment policies to all students, not just the brightest…
December 3, 2004: Virginia Gov. Mark Warner
Speech Remarks at Second Annual National High School Leadership Summit

• Long a leader in innovation, America is increasingly facing serious threats to its competition from abroad. Estimates show that China will graduate 350,000 new engineers per year. In contrast, American universities are producing less than 100,000 annually. The world is catching up...The goal is to provide every student with an opportunity to earn postsecondary credit or begin work towards an industry credential while in high school.
From the Governors’ Action Agenda for Improving America’s High Schools

- Texas sponsors a $38-million competitive grant program to spur its lowest performing high schools to offer different education options. For example, the state encourages these high schools to restructure into early college high schools, which give students an opportunity to improve their basic skills, take college-preparatory and college-level courses, and graduate with a high school diploma and an associate’s degree — all in five years…To help prepare students for college, governors, state education officials and college presidents can provide opportunities for students to take college level classes and earn college credit while in high school.
New Directions for Federal Programs

• (a) Program Authority- The Secretary is authorized to carry out a program to be known as “GEAR UP & GO,” to provide growing opportunities for dual/concurrent enrollment, which shall be designed to provide low-income high school students participating in GEAR UP partnerships or State programs the opportunity to enroll in college courses while still enrolled in high school. –HR3988
Proposed HR366 Transforming Tech Prep

- To further enhance coordination between secondary and postsecondary programs, the bill would establish a new provision for state development of model sequences of courses for vocational and technical program areas. Sequences of courses will incorporate both secondary and postsecondary elements, and include rigorous and challenging academic and vocational and technical content in a coordinated, non-duplicative progression of courses. Sequences of courses will lead to a degree or credential and may be adopted by local educational agencies and postsecondary institutions as an option for students and their parents.
A Snapshot from Parkersburg South High School
Parkersburg, West Virginia (May 2004)

• MR BADGLEY (Principal): Well, one of the great things about the program is that many of the high schools choose to give graduation credit so that the students are earning credits toward graduation from high school at the same time they're earning college credit, which is why the program is often referred to as dual credit. – Office of the White House Press Secretary
President George W. Bush
at Parkersburg South High School
Parkersburg, West Virginia (May, 2004)

• Yes, that's a really smart idea. And how hard is it for the high school students? I mean, if somebody is sitting out there listening who says, gosh, I may want to get my child, who's a sophomore in high school, to think about this -- is it -- is it a steep hill to climb, or is it -- obviously, if 900 kids are going, they've had pretty good success passing the courses.

- Office of the White House Press Secretary
Press Release:
President's FY 2006 Budget Focuses Resources on Students Who Need Them the Most (February 7, 2005—USDOE)

• $125 million for a new Community College Access program to support "dual enrollment" by high school students who take college-level courses.
What President Bush Knows…

• Education will be determinative of success in 2015 at both the individual and country levels. The globalizing economy and technological change inevitably place an increasing premium on a more highly skilled labor force.
2005 National Education Summit on High Schools: Solutions

- Expand and finance college-level learning opportunities in high school. *For example, various types of early college programs in Ohio, North Carolina, Utah and Washington give students the opportunity to accelerate learning and earn an associate’s degree along with the high school diploma in four to five years.*
Growing National Research
High School Reform is driving dual credit; It will also drive college accountability

• The 2005 National Education Summit on High Schools looks toward an even bolder goal: redefining the role of the high school in America while better connecting its curriculum to the expectations of colleges and employers. For too long we have regarded the high school diploma as an end in itself. It is time we look at secondary education as part of a seamless learning system that begins in preschool or kindergarten and continues through some level of postsecondary education — technical training, an apprenticeship, an associate’s or a bachelor’s degree, or other postsecondary education.
Growing National Awareness and Attention on Issues Surrounding Dual Credit

• Integrating Grades 9 Through 14 State Policies to Support and Sustain Early College High Schools – By Nancy Hoffman and Joel Vargas, January 2005

The Bill & Melinda Gates Foundation

In Partnership with Carnegie Corporation of New York, The Ford Foundation, and The W.K. Kellogg Foundation
Summary of State Policies to Support and Sustain Early College High Schools Principle

- *Teacher Certification: (That) High school teachers are permitted to teach college-level, credit-bearing courses, and college professors are permitted to teach high school students within an early college high school.*
Summary of State Policies to Support and Sustain Early College High Schools Barrier

- State and union regulations that prohibit college instructors from teaching high school students
- High school teachers who cannot meet hiring criteria to become adjunct professors at selective postsecondary institutions
Summary of State Policies to Support and Sustain Early College High Schools Recommendations

• Designate college instructors as “highly qualified” under NCLB and state rules if they have taught for three years in their discipline.
Dual Credit is Not New
And it is Not About Reducing Quality

NACEP Statement of Standards Faculty

**Faculty 1 (F1)**
Instructors teaching college or university courses through the CEP meet the academic requirements for faculty and instructors teaching in post-secondary institutions as stipulated by the respective academic departments.

**Faculty 2 (F2)**
The post secondary institution provide high school instructors with training and orientation in course curriculum, assessment criteria, course philosophy, and CEP administrative requirements before certifying the instructors to teach the college/university’s courses.

**Faculty (F3)**
Instructors teaching the CEP sections are part of a continuing collegial interaction, through annual professional development, required seminars, site visits, and ongoing communication with the post-secondary institutions’ faculty and CEP administration. This interaction addresses issues such as course content, course delivery, assessment, evaluation, and professional development in the field of study.
The Most Prevalent Model for Teaching Dual Credit

• Seems Nationally to be one of having high school teachers meeting the requirements to become adjunct instructors at a college or university.

Instructor

- **College Credentials**: High school instructors must have the same credentials as college faculty.
- **College Approval**: College approves high school instructors; instructors need not have the same credentials as the college faculty.
- **Postsecondary Instructors Only**: Only college instructors may teach the courses.
- **Professional Development**: High school teachers must participate in professional development.
- **Secondary or Postsecondary Instructor**: Instructors may hold either a high school or a college teaching credential.
Dual Credit is Not New to Ohio

A small percentage of high school students earned some type of college credit while in high school. The results indicate that getting an early start in college-level coursework is associated with improved academic outcomes in college for these students, regardless of their level of academic ability.
However, It Is Only Used by a Few

- The Postsecondary Enrollment Option (PSEO) was created by the Ohio Legislature in 1990 to allow students to take college courses while still in high school.

- The program pays for most tuition expenses and is administered by the public school system. Interested students must apply to the PSEO program, and if accepted, have the opportunity to earn both high school and college credit for completed courses. Similarly, participation in the PSEO program increased from 2.9% in FY 1999 to 3.1% in FY 2003.

- Although the growth in Ohio’s PSEO participation is encouraging, AP participation of 8.2% in FY 2003 was much lower than the national level of 12.5%. National data on PSEO-type programs are unavailable.

Source-OBR
PSEO and Dual Credit in Ohio

• The reality is that only a small percentage of the “best and brightest” students take advantage of dual credit or PSEO courses in Ohio—the ones who will go onto college to begin with...
Ohio’s Dilemma: We’ll Never Catch Up with the Nation, or the World without New Thinking

Educational Attainment and Per Capita Income
1990 and 2002

Source: U.S. Census, American Community Survey, and Bureau of Economic Analysis.
The Stark County Context

Which premise best fits our needs? Which should we now accept in Ohio and the United States?

1. We should let only qualified students go to college

2. We should let all students go to college with the understanding that we will do what it takes to raise their skills.
The Challenge for Stark State College of Technology and the Canton City Schools

- Evolve a New and Better Dual Credit System
- Combine the Strengths of Both College and High School Instructors in Course Design, Instruction, and Pedagogy
- Provide immeasurable service to both the City of Canton and Stark County Community
The Challenge for Stark State College of Technology and the Canton City Schools

- Assume the Leadership Position in Dual Credit and ECHS in Ohio
- Build a Model for the Nation