SB 311: Selected Research to Inform Carnegie Alternatives

Many experts, states, school models, and proponents of the STEM movement have identified Carnegie structures as a barrier to best practices in teaching and learning:

States
Colorado Department of Education. (2008). Fact sheet: Innovation Schools Act of 2008. Direct link to pdf: http://www.cde.state.co.us/cdegen/downloads/SB130FactSheet111108.pdf Retrieved from Colorado Department of Education website for SB130: http://www.cde.state.co.us/cdegen/SB130.htm

Florida Statutes. Title XLVIII K-20 EDUCATION CODE, 1002.45 School district virtual instruction programs. http://www.flsenate.gov/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=Ch1002/SEC45.HTM&Title=-%3E2008-%3ECh1002-%3ESection%2045

Kentucky Administrative Rules. 704 KAR 3:305. Section 5 Minimum requirements for high school graduation. http://www.lrc.ky.gov/kar/704/003/305.htm

Michigan Revised School Code. MCL 380.1278a Requirements for high school diploma.

Oregon Administrative Rules. OAC 581-022-1130 Diploma Requirements Credit Options, ORS 326.051 (2003).

Washington Administrative Code. WAC180-51-003 (2)(b) Intent fo graduation requirements. http://apps.leg.wa.gov/WAC/default.aspx?cite=180-51-003

State of New Hampshire Department of Education. (2007). New Hampshire's vision for redesign: Moving from high schools to learning communities. http://www.ed.state.nh.us/education/doe/HSvision.pdf

Schools (See Schools and Programs document for a more complete list).
Akron Public Schools. *Programs*: http://www.akronschools.com/studentschools/schools_programs_services.html#Phoenix

Butler Tech. (2006). *Educational options* link below to Wokini example: http://www.butlertech.org/teen/teen_pages.asp?title=218&links=270&id=85&fragment=1&SearchType=AND&terms=educational+opt. See this page for other Options Academies: http://www.butlertech.org/teen/

Dayton Early College Academy, Inc. *DECA Focus and vision*: http://www.daytonearlycollege.org/focusandvision.php

Ohio Department of Education, February 27, 2009

Metro High School, Columbus, Ohio: *Executive Summary:*
    http://www.themetroschool.org/

Sack, M. (1996). *Investigation of credit accelerating and competency-based academic programs for adolescent-age high school students*. Center for Assessment and Policy Development. http://www.capd.org/pubfiles/pub-1996-10-09.pdf

Models

Canady, R. L. & Rettig, M. D. (1995). *Block scheduling: A catalyst for change in high schools.* Princeton, NJ: Eye on Education.

Carroll, J. M. (1994). The Copernican plan evaluated: The evolution of a revolution. *Phi Delta Kappan, 76*, 104-113.

Envision Schools Model. Website:
    http://www.envisionschools.org/page.php?lnk=main/main

Time, Learning, and Afterschool Taskforce. (2007). *A new day for learning.* Edutopia website: http://www.edutopia.org/pdfs/ANewDayforLearning.pdf

Conceptual Research

Adelman, C. (1999). *Answers in the tool box: Academic intensity, attendance patterns, and bachelor's degree attainment*. Washington, DC: U.S. Department of Education. http://www.ed.gov/pubs/Toolbox/index.html

Adelman, C. (2006). *The toolbox revisited: Paths to degree completion from high school through college.* Washington, D.C.: U.S. Department of Education. http://www.ed.gov/rschstat/research/pubs/toolboxrevisit/toolbox.pdf

Berube, M. R. (2007). *The end of school reform.* Lanham, MD: Rowman & Littlefield Publishers.

Boyer, E. L. (1983). *High school: A report on secondary education in America.* New York, NY: Harper & Row.

Brady, M. (2008). Cover the material - Or teach students to think? *Educational Leadership, 65*(5), 64-67.

Bridgeland, J. M.; DiIulio, Jr., J. J.; & Morison, K. B. (2006). The silent epidemic: Perspectives of high school dropouts. Civic Enterprises in association with Peter D. Hart Research Associates for the Bill & Melinda Gates Foundation. http://www.gatesfoundation.org/united-states/Documents/TheSilentEpidemic3-06FINAL.pdf

Chubb, J. E. & Moe, T. M. (1990). *Politics, Markets and America's Schools*. Washington, DC: The Brookings Institution.

Calkins, A. (2007). *The turnaround challenge: Why America's best opportunity to dramatically improve student achievement lies in our worst-performing schools: new research, recommendations, and a partnership framework for states and school districts*. Boston, MA: Mass Insight Education & Research Institute. http://www.massinsight.org/resourcefiles/TheTurnaroundChallenge_2007.pdf

Clarke, S. (2008). *Effective high school reform*. Alexandria, VA: Educational Research Service.

Cohen, D. K.; Moffitt, S. L.; & Goldin, S. (2007). Policy and practice: The dilemma. *American Journal of Education, 113*.

Committee on Increasing High School Students' Engagement and Motivation to Learn. (2003). *Engaging schools: Fostering high school students' engagement and motivation to learn.* Board on Children, Youth, and Families Division of Behavioral and Social Sciences and Education, National Research Council. Washington, DC: National Academies Press.

D'Agostino, J. J. (1984). Concern for the future, ghosts from the past for American high schools: The Carnegie unit revisited. *American Secondary Education*, *13*(3), 2-5.

Darling-Hammond, L., & Friedlaender, D. (2008). Creating Excellent and Equitable Schools. *Educational Leadership. 65* (8), 14-21.

Darling-Hammond, L., Rustique-Forrester, E., & Pecheone, R. L. (2005). In Andree A. (Ed.), *Multiple measures approaches to high school graduation*. Stanford, CA: The School Redesign Network at Stanford University.

Deming, W. E. (2000). *Out of the crisis.* Cambridge, MA: MIT Press.

Education Commission of the States. (2008). From competing to leading: An international benchmarking blueprint. Retrieved August 2008 from: http://www.ecs.org/html/meetingsEvents/NF2008/resources/ECS-InternationalBenchmarking.pdf

Ehrlich, T. (2003). The credit hour as a potential barrier to innovation: Lessons from innovative institutions. *New Directions for Higher Education, 122,* 31-43.

Ehrlich, T. (2003). The credit hour and faculty instructional workload. *New Directions for Higher Education ,122,* 45-55.

Elam, K. G., & Duckenfield, M. (2000). *Creating a community of learners: Using the teacher as facilitator model*. Clemson, SC: National Dropout Prevention Center.

Gold, E., Simon, E., Mundell, L., & Brown, C. (2004). Bringing community organizing into the school reform picture. *Nonprofit and Voluntary Sector Quarterly. 33*, 54S-76S.

Jerald, C. D. (2006, March). Measured progress: A report on the high school reform movement. *Education Sector Reports.*
- Summary at http://www.educationsector.org/research/research_show.htm?doc_id=362537
- Full report at http://www.educationsector.org/usr_doc/Measured_Progress.pdf

Johnson, J. (2006). *The insiders. How principals and superintendents see public education today: A report from Education Insights at Public Agenda*. New York, NY: Public Agenda.

Kendall, J. S. and Williams, J. (2004). *Challenging standards in mathematics: What are high schools missing?* Regional Educational Laboratory Contract #ED-01-CO-0006, Deliverable # 2004-03. McREL. http://www.mcrel.org/PDF/Standards/5041TG_MathChallengeStndrds.pdf

Kolderie, T. (2007). *Creating the capacity for change: How and why governors and legislatures are opening a new schools sector in public education.* Bethesda, MD: Education Week Press.

Kristin, S. (2005). Effective high school reform: Research and policy that works. National Conference of State Legislatures. http://www.ncsl.org/programs/educ/EffectiveHSReform.htm

Lillard, D. R., & DeCicca, P. P. (2001). Higher standards, more dropouts?: Evidence within and across time. *Economics of Education Review, 20*(5), 459-473.

Maeroff, Gene I. (1994) The assault on the Carnegie unit. *NCA Quarterly, 68*, 408-411.

Marzano, R. J. (2007). Using action research and local models of instruction to enhance teaching. *Journal of Personnel Evaluation in Education*, *20*(3-4), 117-128.

Mitra, D. L. (2008). *Student voice in school reform: Building youth-adult partnerships that strengthen schools and empower youth.* Albany, NY: State University of New York Press. Preview at: http://books.google.com/books?id=kwh-sE2OFpUC&printsec=copyright&dq=mitra+student+voice+in+school+reform#PPP1,M1

Murphy, J.; Beck, L. G.; Crawford, M.; Hodges, A.; & McGaughy, C. L. (2001*). The productive high school: Creating personalized academic communities.* Thousand Oaks, CA: Corwin Press, Inc.

National Education Commission on Time and Learning. (1994). *Prisoners of time.* U.S. Department of Education: Washington D.C.

Neville, A. J. (2009). Problem-based learning and medical education forty years on. *Medical Principles & Practice*, *18*(1), 1-9.

Noddings, N. (1993). Excellence as a guide to educational conversation. *Teachers College Record, 94*(4), 730.

Noddings, N. (2007). When school reform goes wrong. New York, NY: Teachers College Press.

Operating Standards for Ohio's Schools, (2006). *S. 3301-35*.

Pink, D. H. (2006). *A whole new mind.* New York, NY: Riverhead Books.

Renzulli, J. S. (1992). A general theory for the development of creative productivity through the pursuit of ideal acts of learning. *Gifted Child Quarterly*, *36*(4), 170-182.

Sahlberg, P. (2006). Education reform for raising economic competitiveness. *Journal of Educational Change*, *7*(4), 259-287.

Schlosser, C. & Watkins, R. (2002). Moving past time as the criteria: The application of capabilities-based educational equivalency units in education. *Online Journal of Distance Learning Administration, 5*(3). Retrieved March 3, 2008, from

Shedd, J. M. (2003). The history of the student credit hour. *New Directions for Higher Education, 122*, 5-12.

Shedd, J. M. (2003). Policies and Practices in Enforcing the Credit Hour. *New Directions for Higher Education, 122*, 13-30.

Sheppard, K. & Robbins, D. M. (2007). High school biology today: What the Committee of Ten actually said. *The American Society for Cell Biology, CBE Life Sciences Education, 6*, 198-202. http://www.lifescied.org/cgi/content/full/6/3/198

State Board of Education's Task Force on Quality High Schools for a Lifetime of Opportunities. (2004). *High quality high schools: Preparing all students for success in postsecondary education, careers and citizenship.* Ohio Department of Education.

Tharp, J. M. (2008). *Breaking the cycle of failed school reform: What five failed reforms tell us.* Lanham, MD: Rowman and Littlefield Education.

Tinker, R. F. (1997). Student scientist partnerships: Shrewd maneuvers. *Journal of Science Education and Technology*, *6*(2), 111-117.

Tyack, D. & Tobin, W. (1994). The" grammar" of schooling: Why has it been so hard to change? *American Educational Research Journal, 31*(3), 453-479.

Ohio Department of Education, February 27, 2009

Van Meter, D., & Price, M. (2007). *Not for the timid Breaking down barriers, creating breakthrough high schools in Ohio*. Seattle, WA: Center on Reinventing Public Education.

Veale, J. R. (2002). *The costs of dropping out of school in Iowa.* Prepared for the Iowa Association of Alternative Education. http://learningalternatives.net/wp-content/uploads/legacy/Costs_of_Dropping_Out.pdf

Wartgow, J. (2008). Why school reform is failing and what we need to do about it: 10 lessons from the trenches. Lanham, MD: Rowman & Littlefield Education.

Weiss, J. & Brown, R. (2003). Telling tales over time: Constructing and deconstructing the school calendar. *Teachers College Record, 105*(9), 1720-1757.

Wellman, J. V. (2003). Accreditation and the credit hour. *New Directions for Higher Education, 122*, 57-69.

Wellman, J. V. (2003). Of Time and the feds: The federal interest in enforcing the credit hour. *New Directions for Higher Education, 122*, 71-81.

Wellman, J. V. (2003). The credit hour and public budgeting. *New Directions for Higher Education, 122*, 83-97.

Wellman, J., & Ehrlich, T. (2003). Editors' notes. *New Directions for Higher Education, 122*, 1.

Wellman, J., & Ehrlich, T. (2003). The credit hour: The tie that binds. *New Directions for Higher Education, 122,* 119.

Wellman, J. V., & Ehrlich, T. (2003). *How the student credit hour shapes higher education: The tie that binds*. San Francisco, CA: Jossey-Bass.

Wise, R. E. (2008). *Raising the grade: How secondary school reform can save our youth and the nation*. San Francisco, CA: Jossey-Bass.

Students need 21st Century skills not easily acquired under the Carnegie model:

Comer, J. P. (2004). *Leave No Child Behind: Preparing today's youth for tomorrow's world.* Yale University Press.

Kennedy, M. M. (2002). Managing change: Understanding the demographics of the evolving workforce. *AAEP Proceedings (48).* http://www.ivis.org/proceedings/aaep/2002/910102000467.PDF

National Center on Education and the Economy. (2007). *Tough choices or tough times: The report of the new Commission on the Skills of the American Workforce.* San Francisco, CA: Jossey-Bass.

Ohio Department of Education, February 27, 2009

Noddings, N. (Ed.). (2005). *Educating citizens for global awareness.* New York, NY: Teachers College Press.

Partnership for 21st Century Skills. (2007). http://www.21stcenturyskills.org/route21/index.php?option=com_content&view=article&id=6&Itemid=3

Robinson, K. (2001). *Out of our minds: Learning to be creative.* Great Britain: Capstone Publishing Ltd.

November, A. Banning student containers. Retrieved October 13, 2008 from *November Learning:* http://novemberlearning.com/images/stories/Documents/Articles/Banning%20Student%20Containers.pdf

Carnegie structures school culture and operations that are mismatched to the needs of our students:

Campbell, B. (1994). *The multiple intelligences handbook.* Stanwood, WA: Campbell & Associates.

Center for Digital Education. (2007). Strategy paper: Teaching the Millennials. From http://www.centerdigitaled.com/story.php?id=104514

Oblinger, D. G. and Oblinger, J. L., Editors.(2005). *Educating the net generation.* Boulder, CO: Educause. http://www.educause.edu/educatingthenetgen/

Gardner, H. (2006). *Multiple intelligences: New horizons*. New York, NY: BasicBooks.

Howe, N. and Strauss, W. (2000). *Millennials rising: The next great generation*. New York, NY: Vintage Books.

Howley, C. B., Howley, A., & and Pendarvis, E. D. (1995). In Borland J. H. (Ed.), *Out of our minds: Anti-intellectualism and talent development in American schooling*. New York, NY: Teachers College Press.

O'Toole, J. and Lawler, E. E. (2006). *The new American workplace.* New York, NY: Palgrave MacMillan.

Squire, K. D. (2008). Video games and education: Designing learning systems for an interactive age. *Educational Technology*, *48*(2), 17-26. For a complete list of research on educational games and gaming by this author, visit http://website.education.wisc.edu/kdsquire/research.html

Time, Learning, and Afterschool Taskforce. (2007). *A new day for learning. Full report:* http://www.edutopia.org/pdfs/ANewDayforLearning.pdf *Video: http://www.edutopia.org/new-day-learning*

Ohio Department of Education, February 27, 2009

The role of relationships is deemphasized in the Carnegie, mass-schooling model:

Beegle, Donna M. (2003). Invisible literacies: Overcoming the silence of generational poverty. *Talking Points.* National Council of Teachers of English. http://www.awsp.org/Content/awsp/ProfessionalDevelopment/PresentationMaterials/OvercomingtheSilence.pdf

Glazek, S. D. and Sarason, S. B. (2007). *Productive learning: Science, art, and Einstein's relativity in educational reform.* Thousand Oaks, CA: Corwin Press.

Noddings, N. (2005). *The challenge to care in schools: An alternative approach to education.* New York, NY: Teachers College Press.

Renzulli, J. S. (1992). A general theory for the development of creative productivity through the pursuit of ideal acts of learning. *Gifted Child Quarterly*, *36*(4), 170-182.

Reforming school toward more personalized instruction requires consideration of how organizational change can be structured for best success

Brand, B. (2004, December). Transforming the American high school: Lessons learned and struggles ahead. Washington, DC: America Youth Policy Forum (www.aypf.org), funded by the Carnegie Corporation of New York. http://www.aypf.org/publications/Transforming%20the%20American%20High%20School.pdf. (Includes a list of schools and their practices.)

Cohen, D. K., Moffitt, S. L., & Goldin, S. (2007). Policy and practice: The dilemma. *American Journal of Education, 113.*

Cohen, D. K. & Ball, D. L. (2007). Innovation and the problem of scale. In B. Schneider & S. McDonald (Eds.) Scale-Up In Education: Ideas in Principle (Volume I), (pp. 19-36). Lanham, MD: Rowman & Littlefield. An earlier draft of this paper was presented at a 2003 meeting ("Conceptualizing Scale-Up"), sponsored by the Data Research and Development Center of The University of Chicago, and supported by the National Science Foundation, in connection with the Interagency Research Initiative (IERI).

Cohen, D., Raudenbush, S., & Ball, D. (2003). Resources, instruction, and research. *Educational Evaluation and Policy Analysis, 25*(2), 1-24. http://www-personal.umich.edu/~dkcohen/ResourcesEEPA2003.pdf

Cuban, L. (2000). Book Reviews: Managing the Dilemmas of High School Reform. *Curriculum Inquiry*, *30*(1), 105-118.
Good succinct history of school reform by Cuban, accounts of two reforms, and expert comparison and evaluation of results.

Finn, C. E., Jr. (2002). Making school reform work. *Public Interest, 148*, 85-95.

Ohio Department of Education, February 27, 2009

Little, J. (2002). Professional community and the problem of high school reform. *International Journal of Educational Research*, *37*(8), 693-714.

Mitra, D. L. (2008). Amplifying studentvoice - School improvement efforts get off the ground when students are invited to participate. *Educational Leadership, 66* (3), 20.

Sarason, S. B. (1990). *The predictable failure of educational reform: Can we change course before it's too late?* San Francisco, CA: Jossey-Bass.

Smith, K. B., & Larimer, C. W. (2004). A mixed relationship: Bureaucracy and school performance. *Public Administration Review, 64* (6), 728-736.

Talbert, J. E. (2002). Professionalism and politics in high school teaching reform. *Journal of Educational Change*, *3*(3-4), 339-363.

Traver, A. (2006). Institutions and organizational change: Reforming New York city's public school system. *Journal of Education Policy, 21*(5), 497-514.

Reforming school toward more personalized instruction also requires new ways of assessing learning.

Darling-Hammond, L., Ancess, J., & Falk, B. (1995). *Authentic assessment in action: Studies of schools and students at work*. The series on school reform. New York, NY: Teachers College Press.

Darling-Hammond, L., & McCloskey, L. (2008). Assessment - Assessment for learning around the world: What would it mean to be internationally competitive? *Phi Delta Kappan, 90*(4), 263.

Davidson, J. (2008). Exhibiting authentic achievement. *Principal Leadership, 9*(1), 36-41.

Der Pan, P. J. (2008). Effects of a competency-based counseling training program for correctional officers. *International Journal of Offender Therapy & Comparative Criminology*, *52*(6), 722-735.

Foote, M. (2005). The New York Performance Standards Consortium college performance study. (Published on performanceassessment.org, the website for the 28 high schools comprising the Standards Consortium. Direct link to the report: http://performanceassessment.org/consequences/collegeperformancestudy.pdf

Green, K., & Emerson, A. (2008). Reorganizing freshman Business Mathematics II: Authentic assessment in mathematics through professional memos. *Teaching Mathematics and Its Applications: An International Journal of the IMA, 27*(2), 66-80.

Ohio Department of Education, February 27, 2009

Gronlund, N. E., & Waugh, C. K. (2009). *Assessment of student achievement*. Upper Saddle River, NJ: Pearson.

Leach, D. C. (2008). Competencies: From deconstruction to reconstruction and back again - lessons learned. *American Journal of Public Health*, *98*(9), 1562-1564.

MacKenzie, A. H., & Zinn, S. (2008). Encouraging student applications to concepts: Alternative assessments provide insight into what students know and are able to do in biology. *The American Biology Teacher, 70*(5), 265.

Marzano, R. J. (2000). *Transforming classroom grading*. Alexandria, VA: Association for Supervision and Curriculum Development.

Marzano, R. J. (2006). *Classroom assessment & grading that work*. Alexandria, VA: Association for Supervision and Curriculum Development.

Marzano, R. J., & Kendall, J. S. (2008). *Designing & assessing educational objectives: Applying the new taxonomy*. Thousand Oaks, CA: Corwin Press.

Neville, A. J. (2009). Problem-based learning and medical education forty years on. *Medical Principles & Practice*, *18*(1), 1-9.

Oosterhof, A. (2009). *Developing and using classroom assessments*. Upper Saddle River, NJ: Merrill/Pearson.

Palloff, R. M., & Pratt, K. (2009). *Assessing the online learner: Resources and strategies for faculty*. San Francisco, CA: Jossey-Bass.

Plucker, J. A., Callahan, C. M., & Tomchin, E. M. (1996). Wherefore art Thou, multiple intelligences? Alternative assessments for identifying talent in ethnically diverse and low income students. *The Gifted Child Quarterly, 40*(2), 81.

Scriffiny, P. (2008). Seven reasons for standards-based grading: Why report cards should abandon the point system. *Educational Leadership*, *66*(2), 70-74.

Silen, C., & Uhlin, L. (2008). Self-directed learning: A learning issue for students and faculty! *Teaching in Higher Education, 13*(4), 461-475.

Sluijsmans, D. M. A., Straetmans, G. J. J. M., & van Merrienboer, J. J. G. (2008). Integrating authentic assessment with competence-based learning in vocational education: The protocol portfolio scoring. *Journal of Vocational Education and Training, 60*(2), 159-172.

Solomon, P. G. (1998). *The curriculum bridge: From standards to actual classroom practice*. Thousand Oaks, CA: Corwin Press.

VanTassel-Baska, J. (2008). *Alternative assessments with gifted and talented students*. Waco, TX: Prufrock Press.

Ohio Department of Education, February 27, 2009