

Part I. Values and Purposes of Higher Education

The value and purpose of post-secondary education are hotly debated and headline news, especially given the ever escalating price of degrees. Parents and students focus primarily on socio-economic factors: “Will my child find employment after graduation that actually allows her to pay off student loans and succeed financially while pursuing her version of the ‘American Dream’?” These views are in a contest with a more classical philosophical outlook held by college/university faculty, administration, and staff, who see more value in knowledge for knowledge’s sake and want their students to be well-educated citizens of their country and the world at large (Kocaqi, 2015). These beliefs are challenged by industry demands for very specific skills and technical education. How can we reconcile these seemingly disparate beliefs, needs, and goals?

Over 50% of recent college grads are unemployed or underemployed, working at jobs for which their expensive educations gave them no training. It is time to get back to basics and to higher education programs directly related to job opportunities.
Republic Party Platform (2012)

To set the basis of this discussion, two working definitions of the purpose of higher education are offered:

A. Traditional Purpose of Higher Education: Educates citizens to become intellectually and socially well-rounded and scientifically literate. Under this philosophy, students are given opportunities to explore vocations and avocations which encourage curiosity and lifelong learning. Proponents of this view believe post-secondary education promotes civic-mindedness and introduces students to diverse values, age groups and an international professoriate which informs a global world view. Graduates are valued for their increased capacity to innovate, think critically, problem-solve, and communicate. (Institute, n.d.; and Chan, 2016).

B. Modern Purposes of Higher Education: Educates citizens to contribute to local and national economies. Students are given skills necessary to achieve economic stability through gainful employment. The primary purpose is to prepare workers to meet the needs of industry. This drives curriculum change. The liberal arts are championed only so far as they promote “soft skills” identified by employers, such as the ability to communicate, work well with others and problem-solve. The curriculum incorporates scientific learning to incubate ideas for new commercial enterprises or contributes to the national defense (Chan, 2016.)

The idea of applying economic measures to a degree makes most academics uncomfortable. It fails to account for higher education’s contributions to society, nor does it measure the less tangible benefits of a college degree, such as improved health, civic engagement, and broad knowledge of the world (Gillen, Slingo, & Zatynski, May 2013).

The Debate:

Through recent policy proposals and decisions, it is apparent that many industry leaders and politicians reject the traditional purposes of higher education. The academy, in contrast continues to fight for a seemingly fading philosophy (Gillen, Slingo, & Zatynski, May 2013). Because the belief that the production of college graduates is closely tied to the economic engine of the nation, state, or region (Sullivan, 2011), politicians are able to impose policies that test the status quo.

Examples include instituting performance-based funding models, establishing tuition caps, limiting developmental education (Harnisch & Lebioda, 2016), and obligating curricular determinations that cross into rights and responsibilities held by faculty, such as course transfer (Minnesota 90th Legislature, 2017).

A recent Minnesota example is a proposed bill, HF 25 [135A.082] Credit Transfer for Students of Closed For-Profit Institutions. This bill, if passed, would require that Minnesota State Colleges and Universities accept courses in transfer from closed-down for-profit institutions. This proposal even gives directives regarding how these courses would apply in programs. Understandably, some faculty feel that their knowledge, judgment and work is not respected or valued and that the purposes of higher education, as they understand them, are being perverted. The focus on issues other than student learning and growth is rejected (Keeling & Herish, 2012).

It is interesting to consider Hill, Hoffman, and Rex's (2005) reaction to the economic engine argument that the production of more college graduates is the primary catalyst moving the economy forward. In their article, they suggest a broader approach:

Evidence does not exist that local production of graduates, in isolation, will be an effective economic development strategy. A portfolio approach — that incorporates higher education and that is aimed at quality workforce development, quality public infrastructure, an emphasis on quality of life and amenities, and efforts to attain and maintain business climate conducive to attracting quality employment opportunities - may yield the highest returns (p. 54).

...higher education is about more than preparation for a first job, salary, or other market indicators. Among its many benefits, higher education services the long-term public good by creating a scientifically-literate society.
National Science Board (2016)

Minnesota and Wisconsin -- Market Forces & Policy Change in the Academy:

As mentioned above, the academy's belief that their *raison de'etre* is threatened by these market forces (Eckel, & King, 2004) leaves many academics troubled and distressed. They argue that the naive adoption of questionable directives, seemingly being pushed in every legislative session, is

shortsighted and insufficiently thought-out (Simmons & Floyd, 2009). The current state of angst on campus is high.

Without a doubt, market forces are prompting change in "the way we do business" in higher education (Harnisch & Lebioda, 2016). In meeting legislative requirements to gain or simply maintain financial support from the state, the Minnesota State Colleges and Universities system updated its policy on academic programs in November 2011. This policy now specifically directs the system colleges and universities to provide education to meet workforce needs as a primary purpose.

The academic programs of the Minnesota State Colleges and Universities should prepare graduates for work, life, and citizenship. Academic programs should create graduates who are creative, innovative, and able to respond with agility to new ideas, new technologies, and new global relationships. Graduates should be able to lead their professions and adapt to the multiple careers they will have over their lifetimes... (Minnesota State Board Policy 3.36, Part I).

Proposed January 5, 2017: HF 25 [135A.082] (a) The Board of Trustees of the Minnesota State Colleges and Universities and the Board of Regents of the University of Minnesota must award transfer credit to an admitted student who enrolls because the student was unable to complete a course of study at a private, for-profit postsecondary institution located in Minnesota as a result of that institution's closure. (b) The number of credits an institution must award under this section must be based upon: (1) the number of credits the student completed at the closed for-profit postsecondary institution; and (2) the relationship of the transferred credits to the student's new program or course of study. (c) An institution that accepts transfer credits under this section must count as completed any goal area within the Minnesota Transfer Curriculum that the transferred credits fulfill (Minnesota 90th Legislature, 2017).

Minnesota State's educational priorities include directives to "Ensure quality and excellence that is competitive on a national and international level in meeting the needs of students for occupational, general, undergraduate, and graduate education" and "Give highest priority to meeting the needs of Minnesota employers for a highly skilled and adaptable workforce" (Part I, Paragraph 1).

In the 2015-2016 session of the Wisconsin State Legislature, an attempt was made by Governor Scott Walker to significantly alter the statutory mission of the University of Wisconsin.

SECTION 1111. 36.01 (2) OF THE STATUTES IS AMENDED TO READ:

36.01 (2) The mission of the system is to develop human resources to meet the state's workforce needs, to discover and disseminate knowledge, ~~to extend knowledge and its application beyond the boundaries of its campuses~~ and to ~~serve and stimulate society by developing~~ develop in students heightened intellectual, cultural, and humane sensitivities, scientific, professional and technological expertise, and a sense of purpose. ~~Inherent in this board mission are methods of instruction, research, extended training and public service designed to educate people and improve the human condition. Basic to every purpose of the system is the search for truth.~~

This suggested change to the statute was summarily withdrawn as a "drafting error."

The Chronicle of Higher Education report *College to Career: Exploring the Relationship between College Degrees and Career Success* (2016) looks at differences in perceptions of higher education leaders to that of hiring managers. One question discussed was whether or not colleges sufficiently prepare graduates for employment. While both groups agree that the bachelor's degree has value as a measure of general preparedness, employers seek to know more specifically what students have learned and evidence of learning beyond the traditional transcript. While the study suggests that "68% [of higher education institutions] have already modified their coursework to better align with workforce needs" (p. 13), colleges and universities are beginning to adopt "micro-credentials" to evidence student learning. These include industry certifications required as graduation requirements, digital badges, portfolios or other types of records to prove that a student has the necessary knowledge and can perform at the levels expected by industry.

Patricia McGuire in *Transforming the Value Proposition* (2016) sums it up this way:

We have allowed the story of higher education today to become one about value, to be sure -- monetary value, dollars and cents as surrogates for quality and more important moral values. It's not just about the incredible wealth of some universities, although that is part of the perceived value today, at least in rankings. Even more, it's all about the economics for the consumers: whether the student finds the experience of higher education to be valuable not in terms of the person we help him or her to become, but rather, whether the graduate gets a well-paying job. *PayScale* has shoved aside the philosopher king as the arbiter of the worth of college.

Part II. Aligning Academe with Labor Market Supply/Demand

While the debate goes on, Minnesota State is under a legislative mandate to review labor market data within the program approval process. Specifically, Minnesota Statutes 136F.27 requires Minnesota State to use data compiled by the Minnesota Department of Employment and Economic Development (DEED).

Minnesota State also participates in grant funding provided by the Carl D. Perkins Career and Technical Education Act (U.S. Department of Education, 2006). These funds are used to support high school and college students seeking to gain career and technical education/skills through pathways from high school to college and technical/occupational programs. A factor of utmost importance is that this education should lead to “meaningful, family-sustaining employment” (Minnesota Department of Education, Career Development, n.d.).

While employers prefer to hire individuals with more education, it may not be in the best interest of students for colleges to offer training for jobs that are primarily part-time without benefits or if the hourly wage does not offer enough for a basic standard of living. Colleges need to weigh the benefit to the institution against the financial benefit to students. If a student receives a loan to attend, will they have enough of a wage boost upon completion to justify the time and cost?

Ryan Winkler (2013) reports that:

Many jobs in Minnesota pay less than a living wage. In Minnesota, a bare-bones budget for a family with two full-time working adults and two children reached \$58,368 in 2009...The Jobs Now budget, calculated for various family configurations and for individuals, includes only food cooked at home, housing, health care, transportation, child care, clothing and other necessities, and net taxes. It covers no restaurant meals, no transportation for recreation or shopping, no educational costs, no vacations, savings, or emergencies., each adult in this type of household would have to make \$14.03 an hour to meet the basic needs budget, assuming a 40 hour work week and that all income consists of earnings. Yet approximately 40% of Minnesota jobs in 2009 paid wage rates at below that rate (p. 9).

A majority of workers turning to public assistance work in: administrative and support..., retail, accommodation and food service, and health care and social services industries (Winkler, 2013, p. 11).

Labor Market Data Tools are widely available and the majority are accessible online with no cost. These many tools (see Appendix A) provide a wide variety of data points to consider. Some resources offer data specific to Minnesota, Wisconsin, North Dakota, South Dakota, and Iowa (LMIwise, n.d.) and others provide national data or state by state Labor Market Information (EDEPS & Bureau of Labor Statistics, n.d.).

Please note that whereas finding data is relatively easy, interpreting the data is challenging and time consuming. The Minnesota State Colleges and Universities LMIwise Data Interpretation Guide (2014) explains the complexity of data interpretation:

Good data interpretation involves weaving together multiple information sources to tell an accurate story about workforce supply and demand...avoid pre-conceived conclusions that may cause you to selectively pick data that supports a preferred outcome; know when to retain or dismiss data; and reconcile conflicting data...(p.2).

2016 Minnesota Statutes

136F.37 Job Placement Impact on Program Review: Information to Students,

§ Subdivision 1. Colleges; technical occupational program.

The board must assess labor market data when conducting college program reviews. Colleges must provide prospective students with the job placement rate for graduates of technical and occupational programs offered at the colleges.

§ Subd. 2. DEED labor market survey; MnSCU usage and disclosure. The data assessed under subdivision 1 (colleges; technical occupational programs) must include labor market data compiled by the Department of Employment and Economic Development under section [116J.4011](#).

The board and its colleges and universities must use this market data when deciding upon course and program offerings...

Data analysis is complicated... throughout the analysis process professional judgment will be required. Note that different sources have disparate characteristics that must be taken into account. The information will be historical, current, or projected. The Classification of Instructional Programs and (CIP) and Standard Occupational Classification (SOC) used to search for academic program labor market supply and demand data may not align. For example, the SOC code 29-1071, Physician Assistant includes the following job titles: Surgery physician assistant, anesthesiologist assistant, and gynecological assistant (Bureau of Labor Statistics, n.d.) but the CIP codes for academic programs separate these training programs. Sometimes data sources seemingly present conflicting data.

To reach a balanced interpretation sources should be considered holistically. Consider demand for workers (jobs, wages), supply of workers (graduates, other sources), and additional environmental information that may influence the analysis, such as, whether competitors are closing their programs or if an industry is moving to the area. For example, recently several Twin Cities area for-profit colleges were closed and this left a supply gap for veterinarian technicians. This would have to be factored into the analysis. See the [LMIwise Data Interpretation Guide](#) for a thorough discussion of labor market data analysis.

Part III. Increasing Enrollment and Completion While Meeting Employer Demands Entails Curriculum Fine Tuning.

Peter Bryant (2013), an enrollment management expert, suggests that one of the most cost-effective ways to increase enrollment at your college or university is to retain the students who have already enrolled. While there are many enrollment strategies that focus on financial aid issues, student support services and greater social investment by faculty and staff, one strategy often ignored is that of academic program curriculum design. The ideas suggested below are given within the context of academic programs designed to prepare students in primarily technical or professional fields of study, although the concepts may also contribute to a more balanced and defined liberal arts offering. Design strategies to consider include:

- Limiting credits to 60 for associate degrees or 120 for bachelor degrees
- Providing more focus within the curriculum (allowing for student exploration within limits)
- Developing sub-baccalaureate certificate programs
- Adopting non-credit digital badges that enhance the student transcript

Credit Limits:

Across the country, many states are limiting degree credit lengths to 60 credits for an associate degree and a bachelor's degree to 120 credits. This mandate has been instituted in several states, such as Arizona, Florida, Minnesota, Texas, and Wisconsin and is an expectation of the Higher Learning Commission (Heileman, 2013).

A curriculum development strategy requiring academic program designers to become even more deliberate in their academic planning is one that requires intentional reflection. That is, planners must identify the knowledge, skills and dispositions needed for the type and level of employment the program purports to prepare students to perform. A design that clearly expresses student learning outcomes and determines where overlap of curriculum is appropriate and where it is unnecessary helps to assure that students won't feel like they are asked to pay for classes that keep re-teaching the same concepts, but rather, offers more increasing depth and value. While this approach requires a greater coordination amongst faculty within departments and across the college or university, interdisciplinary approaches to teaching and learning produces good fruit (Fain, 2013).

Focused Curriculum:

Along with credit limits, an academic program that requires a tight curricular focus can help to assure that students will stay attentive and on track, thus propelling them towards graduation more efficiently. A more directed curriculum may still offer some individual degree customization for students, while at the same time limiting completely free, or “grab bag” exploration. Providing a set curriculum that includes restricted elective choices benefits students, faculty, the institution, and even employers. Students are more likely to graduate with fewer excess credits and, therefore, will save time and money. Faculty members will have more security knowing that their class will not be cancelled due to low enrollment. College and university administrators will have greater capacity to more accurately schedule long range (Minnesota Office of Higher Education, 2015). Finally, industry partners would more clearly see how the curriculum meets their stated goals (McKiernan, 2012).

Sub-baccalaureate Certificate:

Designing sub-baccalaureate credentials built on a 30 credit backbone is an approach particularly attractive to non-traditional students. A shorter (one year) program may appeal to those who seek retraining after losing employment or those who wish to add to their resume a particular skill set beyond their previous experience or education.

In the planning stage, it is important to be sure that these shorter certificate programs fully ladder (with no loss of credits) into a related associate degree and then a bachelor’s degree. Another key point in the curriculum design is a need to verify that it provides an appropriate depth of knowledge and skill. Some college administrators and faculty believe that very short certificates are beneficial. In my role as an academic program director, I often receive requests to approve 9-16 credit offerings. In general, these do not provide sufficient depth to be valuable. While offering very short certificates is clearly a good way to increase “completion rates”, researchers have found that if programs are too short, neither the student nor the employer benefits. “Earning a long-term certificate is associated with increases in the likelihood of being employed” (especially in the field of healthcare) and “a short-term certificate *is not* related to either [increased] likelihood of employment or hours worked” (Dadgar & Trimble, 2014, p. 15).

When designing sub-baccalaureate certificates, it is also important to require liberal arts and sciences courses that not only support success within a particular career, but that will also transfer as a part of the general education core. Liberal arts courses should be taught at the “freshman and sophomore-level” (Bautsch, 2013, pg. 2). This will assure that the credits apply towards graduation in associate and bachelor’s degree programs. Designers should avoid the use of “general studies” courses, such as “Technical Mathematics” because while these may be considered “college level,” they may not be accepted in transfer.

The program description should clearly describe the learning outcomes gained from the technical and the liberal arts courses. In determining the sequence of the curriculum, program planners should weave the liberal arts courses throughout and not leave them for last. Separating general education courses makes it appear that these courses are unnecessary “extras” that colleges throw in to increase revenue. The message students receive is that they are being asked to pay for superfluous “fluff” that does not support their goals.

Digital Badges:

The digital badge is a new concept. The question is whether these “badges” have any real value to students or if they are just notations of student attendance, like a participation award. In fact, these new non-credit awards, offered by respected higher education institutions such as the Georgia Institute of Technology, UC-Davis, UC-Irvine, Continuum College, University of Washington, Purdue University

and Indiana University offer this type of focused training for working adults. David Schejbal, Dean of Continuing Education at UW – Extension, states “The vision is to create a structure of alternative credentials that students could acquire relatively quickly and inexpensively that will also be immediately useful from an employment perspective” (Zalaznick, 2015).

Digital badges are offered in a variety of subjects including: how to run effective meetings, how to take minutes, improving communication skills (oral/written), presentation skills, small business management, project management, and leadership. These micro-credentials are offered as stand-alone modules or sets of modules and are exceedingly affordable, Oregon State University, for example, charges \$110+ per module (Oregon, 2017; and Purdue, 2012).

Part IV. College Education: a Means to an End or an End in Itself? (Mohr, 1997).

This debate between philosophies can be a win-win instead of a win-lose. The complex differences between the perspectives are challenging; I am hopeful that balance can be achieved. While the current state of flux is uncomfortable, there may be benefits. Students can learn skills and simultaneously experience educational opportunities that encourage personal growth resulting in the development of creative lifelong learners. A “win-win” is an academy that produces graduates who can find satisfaction in their work, develop skills necessary to earn a living, and who, due to a stronger “purpose-orientation” enjoy a greater life balance than their parents or grandparents (Hurst, 2016).

The task before the academy is difficult, but achievable. Just as we ask our students to challenge themselves and grow in new and sometimes uncomfortable directions, we must likewise ask ourselves to do the same. Success in doing so is imperative. We owe no less to our children, friends, neighbors and citizens of our nation and the world. Today, the world is more connected than even just 25 years ago. Individuals can now telecommute or travel quickly to far flung work locations and communicate via group chats that include participants from anywhere in the world. This is the environment which we are tasked to prepare our students to succeed and lead.

Appendix A: Labor Market Information Tools and Resources

Title & Definition	Notes
<p>United States Department of Labor. Bureau of Labor Statistics: Standard Occupational Classification (SOC codes) The list of occupations comes from the U.S. Department of Labor’s Standard Occupational Classification system. There are 840 occupations spanning all types of work activities. Each occupation has a six digit code, title, and definition. For example, 29-1141 is code for Registered Nurse.</p> <p>https://www.bls.gov/soc/major_groups.htm</p>	<p>The 2010 Standard Occupational Classification (SOC) system is used by Federal statistical agencies to classify workers into occupational categories. All workers are classified into one of 840 detailed occupations according to their occupational definition. Detailed occupations in the SOC with similar job duties, and in some cases skills, education, and/or training, are grouped together</p> <p>Note: Not every occupation has a “SOC” code. New emerging occupations and within industry title changes are not immediately reflected.</p>
<p>Program Name or Classification of Instructional Programs (CIP) Code. The list of programs comes from the Classification of Instructional Programs through the U.S. Department of Education. Each of the approximately 1,600 programs has a six digit code, a title, and a definition. For example, 51.0602 is for Dental Hygiene/Hygienist.</p> <p>https://nces.ed.gov/ipeds/cipcode/Default.aspx?v=55</p>	<p>CIP codes may not match curriculum exactly, seek an 80-85% match. Avoid giving programs CIP codes with the “99” or all other not mentioned above designation as labor market data becomes even more difficult to quantify.</p>
<p>CIP SOC Crosswalk, Occupation Program Sets, Units of Analysis: Researchers link CIP codes and SOC codes to define groups of occupations and programs that share supply.</p> <p>https://nces.ed.gov/ipeds/cipcode/resources.aspx?v=55</p>	<p>Occupations may have a relationship to no academic programs, one academic program or multiple academic programs. Conversely, academic programs have relationships to no jobs, one job, or many jobs. Sometimes supply for one occupation may be provided by several educational programs, and other times multiple educational programs supply multiple occupations. These relationships are continually refined through on-going research.</p>
<p>Economic Development and Employer Planning System. The Economic Development and Employer Planning System (EDEPS) is an analytical tool for business, education, workforce and economic planners. EDEPS facilitates the analysis of economic health, industry performance, population trends, labor supply and demand, training resources, income characteristics, and market potential. http://www.edeps.org/</p>	<p>Select Programs of Study and Training, then select the state and CIP code. Supply (5 year trend data) and Demand information is provided.</p>
<p>LMIwise: Similar to EDEPS, this website tool provides regional labor market supply and demand data specifically for Minnesota, Wisconsin, Iowa, North and South Dakota. Data selected may be downloaded into the interpretation guide for analysis.</p> <p>http://www.careerwise.mnscu.edu/lmiwise/</p>	<p>This web tool designed by staff from Minnesota State Academic Programs unit, ISEEK and Department of Employment & Economic Development.</p>
<p>O*Net Online The O*NET program is the nation's primary source of occupational information. Central to the project is the O*NET database, containing information on hundreds of standardized and occupation-specific descriptors.</p> <p>https://www.onetonline.org/crosswalk/ http://www.onetsocautocoder.com/plus/onetmatch</p>	<p>The database is available to the public at no cost, is continually updated by surveying a broad range of workers from each occupation. You can drill down by occupation and state data. O*Net – SOC Autocoder developed by R.M. Wilson Consulting, Inc. for the US Department of Labor. This tool is used to find assigned SOC-O*NET occupational code jobs and titles. Search by: job title, description, category, education level or industry.</p>
<p>The Integrated Postsecondary Education Data System (IPEDS). A nationwide reporting system for higher education. One of IPEDS’ many data streams is a report of the number of program graduates (graduates) by program (CIP code) for each institution. https://nces.ed.gov/ipeds/</p>	<p>Excellent source to determine program graduates. Note: A new program is unlikely to produce graduates during its first years of operation. This situation may under-indicate supply that will eventually be produced by other institutions.</p>
<p>U.S. Bureau of Labor Statistics Employment Projections program. The level of education is a national indicator of the minimum education that is typically needed for entry into each occupation.</p> <p>https://www.bls.gov/emp/ep_table_111.htm</p>	<p>Review to determine Entry-Level education required nationally for employment in an occupation. Note: Educational requirements may vary within an occupation, additionally your state may have different standards.</p>

Title & Definition	Notes
<p>CEB TalentNeuron. CEB TalentNeuron is a rich sources of data for “real time” online job postings. https://www.cebglobal.com/talent-management/talent-neuron.html/</p>	<p>This products require a license to use. This or any similar help wanted job scanning product will provide job postings, however, <u>postings are not equivalent to actual job openings</u>. Notes: Although the software may claims to de-duplicate, this is not exactly accurate. Also, data may be metro-centric. It is recommended to use this type of tool to Review posted position descriptions to determine: *The common level of education needed for the job; *Amount of prior experience required on average; *Information regarding licenses/certifications required; *Identification of skills required and employer values; *Whether jobs are primarily full time or part time; *Most common “lay titles”</p>
<p>Minnesota Department of Employment and Economic Development (DEED). The Minnesota Department of Employment and Economic Development (DEED) is the state's principal economic development agency. DEED programs promote business recruitment, expansion, and retention; international trade; workforce development; and community development. http://mn.gov/deed/data/data-tools/</p>	<p>Provides data in a wide range for varied audiences: Job Seekers, Career Explorers, Employers, News Media Labor Market Highlights, Regional Labor Markets, Research and Data Analysis Reports.</p>
<p>Graduate Employment Outcomes in Minnesota (DEED) The Graduate Employment Outcomes data tool shows how many Minnesota graduates are finding Minnesota jobs, and at what wages. https://apps.deed.state.mn.us/lmi/etd/Results.aspx</p>	<p>Data is displayed by year, region and reflects 2-digit and 4-digit CIP codes. Data projected are full/part time employment rates, regions of employment, industries-field of employment and up to 6 years of actual wage data of graduates. You can drill down to review data by award level, region and school.</p>
<p>DEED – Career Profile Data Tool. The Career Profile data tool shows a wide range of occupational information in a single easy-to-use online tool. Find wages, demand, job opportunities, and more. Also download Eligible Training Provider listings including WIOA-certified trainings. http://mn.gov/deed/data/data-tools/career-profile/</p>	<p>Review careers by region and occupation.</p>

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