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A Return on Investment Force Multiplier of an Entrepreneurial Administrative Organization for Professional Studies

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A Return on Investment Force Multiplier of an Entrepreneurial Administrative Organization for Professional Studies

Abstract

Scaling a maturing fee-based administrative organization, delivering professional programs to working professional adult learners, to maximize return on investment, required a fully aligned and synchronized, and, naturally derived and time-phased three-pronged approach: (1) being open to multiple mediums of increasing band-width delivery, (2) creatively visualizing, and performing a detailed job enrichment and enlargement analysis supporting backfill at the lowest levels, and (3) finding synergistic cross-university collaborations for efficiency gains and cost containment.

Over a seventeen year period, mediums of delivery evolved to support an ever increasing breadth of potential professional working adult learner participants. Dating back to 1998, the origin of the currently known Center for Professional Studies in Technology and Applied Research (ProSTAR), the medium of delivery originated as a weekend program, evolving through four natural distance delivery derivations. With mediums of distance delivery as the foundation, there evolved a natural derivation for effectively compensating participating faculty and their academic departments.

Corporate budget constraints coupled with continually evolving market forces, required a competitive posture supporting continued expansion, while controlling cost growth. This dual approach of increasing gross revenue through student enrollments, while simultaneously exercising pro-active cost containment formed the premise and requirement for strategically aligned collaborations.

This paper will examine a seventeen year history of distance delivery mediums and their corresponding models for faculty and academic department compensation models. In addition, this paper will reflect the cost savings from an exhaustively performed and executed detailed job enrichment and enlargement analysis of members of a professional organization serving the needs of professional working adult learners. Finally, this paper will discuss the synergistic results to-date of the single largest distance learning cross-college collaboration in the history of this tier 1 research university.

A Seventeen Year History

What follows is a historical context for the current Purdue University Center for Professional Studies in Technology and Applied Research (ProSTAR). The purpose of this section is to

provide a framework to better understand the evolution of ProSTAR administered programs and delivery mediums.

On June 11, 1998, the Purdue University College of Technology (CoT) initiated the process for University, and subsequently, Indiana Commission for Higher Education, approval of a non-traditional delivery medium, fee-based weekend alternative to Purdue's traditional on-campus tuition-based Master of Science with a major in Technology degree[1].

On October 13, 2000, the Indiana Commission on Higher Education (ICHE) approved the University request for delivering a hybrid distance-based alternative to the traditional on-campus tuition-based classroom-only programs. The entire process from conceptualization to full final ICHE approval took two years and four months. Noteworthy, from the proposal excerpt, the concept of evaluation [quality of the program] was integral to the program proposal from the onset.

In the fall of 1998, the CoT's Department of Industrial Technology took a lead role in implementing, pursuant to ICHE authorization, the first weekend master's program (WMP) in Technology on the campus of Purdue University in West Lafayette, Indiana. The original offering was cohort-based and it employed a weekend format; meeting from Friday through Sunday. The cohort met three times a semester, twice in the summer semester, for a total of five semesters (Fall, Spring, Summer, Fall and Spring). After 22 months, all members of the initial cohort format graduated in the May 2000 graduation ceremony. Because of its non-traditional approach, the state's authorization included the establishment of a different fee structure than normal on-campus classes which resulted in a program cost that was higher than traditional on-campus equivalent programs.

The Center for Professional Studies in Technology and Applied Research (ProSTAR) was approved by Purdue University under the College of Technology as an academic Center in February 2009. At that time, the underlying foundation for ProSTAR's professional education activities was a Master of Science degree with a primary focus in technology leadership and innovation skills including tools for process improvement and quality management.

In addition, this program incorporated other innovations beyond its delivery system, schedule and fee structure. To be consistent with its goal of developing practical skills and knowledge immediately, or at least quickly, applicable to business and industry, its plan of study[2] incorporates a base of essential core studies, flexible and easily tailored courses to insure relevance to emerging technologies, and a guided, industry focused applied research and development project called simply the Directed Project (DP). The latter DP was deliberately designed to require work commensurate to what is typically expected of a master's degree thesis[3].

ProSTAR is entirely self-funded from fee-based programs. It offered its first 100% distance program in 2010.

The initial on-campus distance-hybrid offering in the fall of 1998 spawned a comparable off-site instantiation of this sole program in 2005. The 2005 instantiation was delivered in an on-site format at the location of a target corporate partner. This industry- and corporate-specific instantiation provided for the first time significantly increased enrollments outside of the main campus and the prior and on-going on-campus distance-hybrid baseline programs. Figure 1.0 below depicts the suggested first wave of increased enrollments.

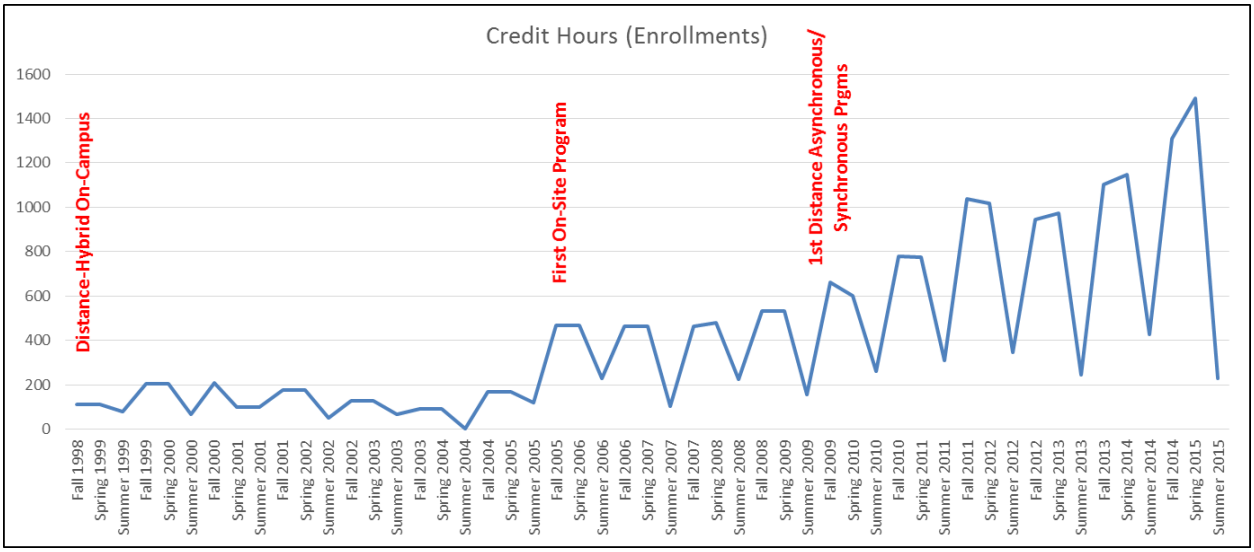

Figure 1.0 – Delivery Induced Enrollment Growth

The geographical limits of on-campus programs, even taking into consideration the distance-hybrid aspects of the programs, created a self-imposed constraint. Moving the programs to a customer's location, geographically distant from the main on-campus programs, spurred enrollment growth, but it too created enrollment limitations based on corporate sponsorship and geographical specificity.

In 2010, ProSTAR, in collaboration with the academic departments, entered the distance education market with three 100% distance programs. Distance offerings created a significantly greater market, one not bounded by geography. Most growth to-date has been the result of distance offerings. It is further anticipated that most future growth providing the greatest opportunity for sustainment of an on-going administrative organization will materialize through distance delivery models.

The 2010 offering of distance programs came in two noticeably different delivery methodologies: namely, synchronous and asynchronous. Synchronous delivery of a given distance program implies the recipient of the instruction is receiving the instruction in real-time as the instruction is being provided. While this methodology supported the distance element thereby not requiring the student to attend class on the university campus or, in a previously discussed format, at an employer's location, it still limited student participation by requiring a set

time by which the instruction was to be given and therefore a set time by which the student must be available and prepared to receive said instruction. This concept created yet another limitation to full enrollment possibility or potential for maximum enrollment opportunities.

Distance programs offered through the latter delivery mode of asynchronous delivery, fixed, or removed, the barriers other predecessor synchronized program delivery models created.

While the on-campus distance hybrid, on-site distance-hybrid, and 100% distance asynchronous delivery models still exist in a multitude of program offerings, the 100% distance asynchronous delivery model creates the greatest promise for maximum enrollments; only limited by the desire to obtain the offered degree program.

Figure 2.0 below depicts the delivery modes employed and their respective limitations.

Delivery Mode / Limitations	Geographical	Employment	Real-Time
1998 Distance-Hybrid; on campus			
2005 Distance-Hybrid; on-site, off-campus			
2010 Distance Synchronous Programs			
2010 Distance Asynchronous Programs			

Figure 2.0 – Enrollment Limitations by Delivery Mode

Enrichment, Empowerment, Responsibility and Accountability

A fee-based self-funded organization has to be particularly attuned to any organizational expenditures that might impact the overhead rates for the organization. Overhead rates for an administrative self-funded organization are an additional burden against gross revenue that results in a reduced profit/residual to the academic department(s); the home department for administered academic programs.

Coupling the need for controlling overhead rates with the theoretical employment vulnerabilities of being employed in a self-funded administrative organization, it is even more important that employment growth capitalizes on individual knowledge, skills and capacity for growth within each specific individual context. The manifestation of this theory and practice is twofold: to free senior employees to perform those many activities requiring their advanced knowledge and skill set, and, to fill open opportunities for employment at the lowest levels of the organization.

Filling at the lowest level of an administrative organization frequently means filling at the department/organization administrative/secretarial level. This level of new employee also is afforded the greatest opportunity for continuing employment within other organizations, in the

unlikely event the originally hiring administrative organization experiences a downturn in continuing funding; resulting, for example, from a loss of enrollments. Specifically, other non-administrative organizations, e.g. academic departments, are more likely to be in favor of transferring the administrative/secretarial employee to their own department if the situation demands continued employment for the individual.

From another perspective, if the self-funded administrative organization is required to ask permission to hire additional employees, then the self-funded administrative organization is more likely to gain permission to hire the lower salary, more transferrable employee than the higher salary less-transferrable employee.

Given all of this, it is imperative the self-funded administrative organization do a detailed job enrichment and enlargement analysis to determine how best to align future required work.

Figure 3.0 depicts the previous generation organization chart.

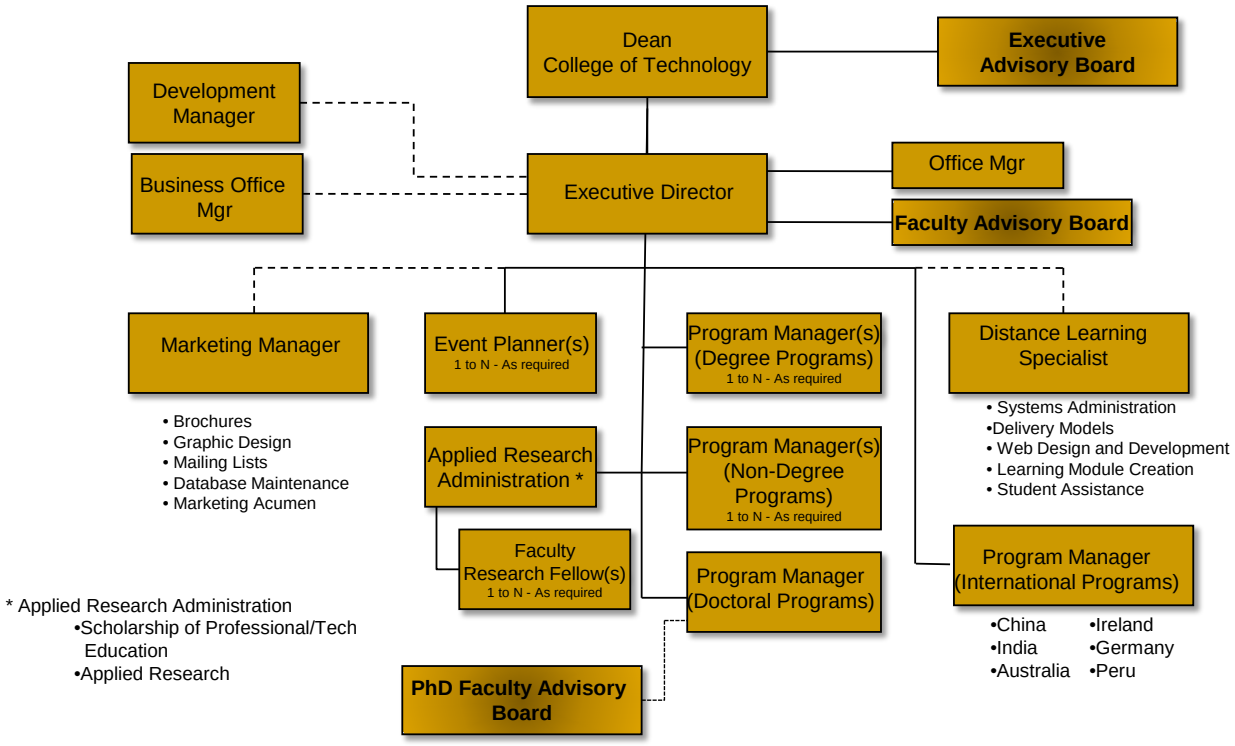

Figure 3.0 – Previous Generation Organization Chart

In reviewing the above chart, there are depicted 1…N program managers for numerous program types, including, degree, non-degree, doctoral and international. It would be easy to have asked for additional program managers to pursue additional permutations of existing, or new,

programs. From a cost per employee perspective, this approach however, would have resulted in a significant increase in expense, again, against gross revenue; reducing the profit/residual to the participating academic departments.

The approach pursued relooked at the then organization of work from a knowledge, skills and abilities perspective; then coupled the resultant insight with clusters of work where responsibility and accountability can be measured. This analysis revealed the single greatest time-consuming activity to be working with the potential student themselves; something perceived as a source for pride and current success. This, then, became an area to focus a dedicated resource. The responsibilities of this single area of focus are depicted below:

- Maintain student contact information
- Maintain prospect process/list
- Send information letter, curriculum, and brochures at students request
- Ensure application process is complete
- Monitor student grades each semester
- Organize Directed Projects with students
- Ensure Candidate requirements have been completed by deadlines
- Drop/Add/Grade Change – create and process forms, signatures, etc.
- Student Event Planning

From a beginning to ending perspective, a new position was created to manage the student experience. The then office manager position was broken into two positions; department secretary and Operations Manager. Student activities previously performed by senior level program managers were reallocated to this new position, therefore, freeing senior program managers for strategic pursuits and initiatives. The newly formed department secretary position was a backfill at the lowest level of the administrative organization, and, the least costly new hire fill.

In the final analysis, backfilling from the lowest level is not new. It has been the process mindset for many years in business and industry, and is well documented in business and management literature. As well, job analysis and design is not new. Etching new clumps of work can be more of an art than necessarily a science; when there is a greater focus on prioritized activities of brand.

While instinct is to fill at the level required to pursue new business, efficiency suggests filling at the bottom of the organization for the following reasons:

- Job enrichment – redesigning the activities of the organization provided an opportunity to change the content of the activities and create a single source responsibility for each set of activities.

- Job enlargement – redesigning the activities provided an opportunity to change the scope of the work performed, providing greater variety in a single position.
- Cost containment – filling from the bottom-up, backfills employees from a least costly and most widely transferrable perspective.
- Realigning senior level responsibilities supports the "pushing down" of responsibilities such that more strategic initiatives can be pursued.

Figure 4.0 depicts the modified organization chart after the job enrichment and enlargement analysis.

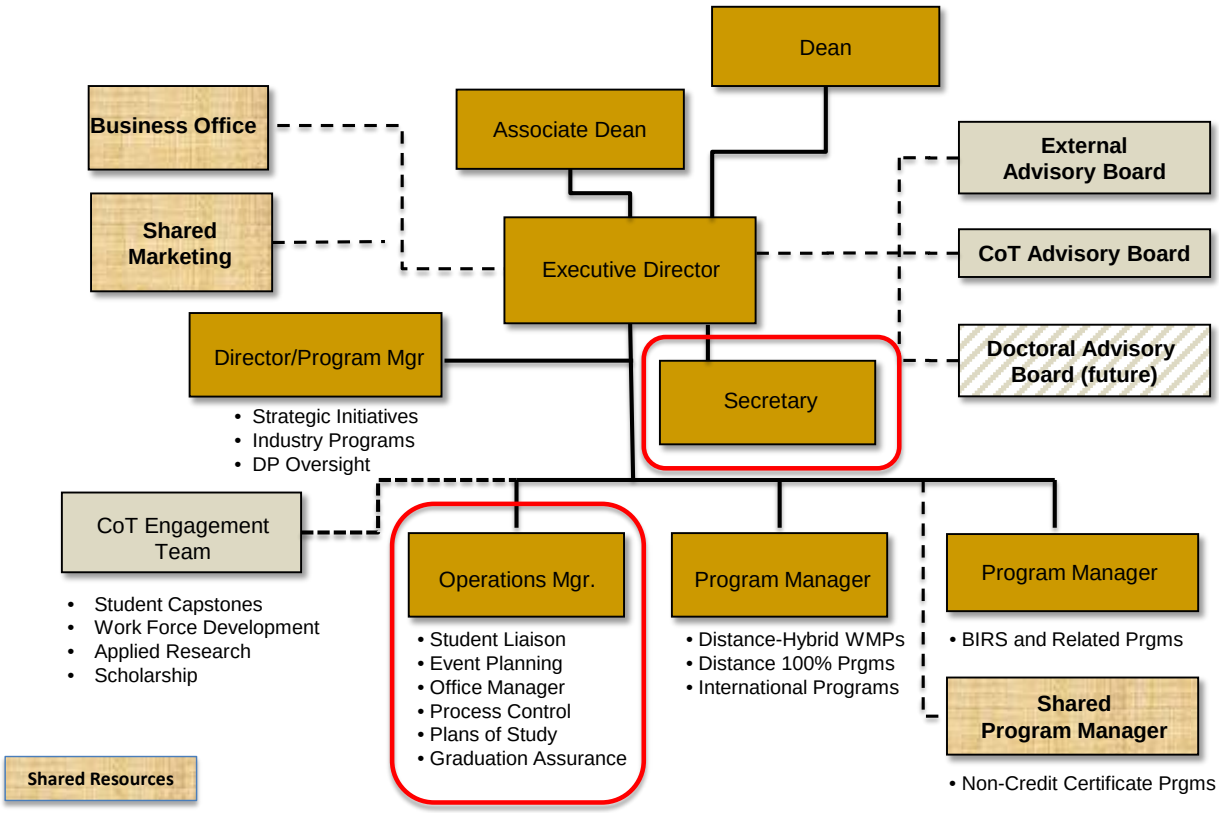

Figure 4.0 – Current Organization Chart after Job Enrichment and Enlargement Analysis

Collaboration for Maximum Efficiency and Effectiveness[4]

The engineering and technology educational continuum was formalized in a 1955 report of the Committee on Evaluation of Engineering Education as part of the American Society of Engineering Education by then chair Linton Grinter. In the report there was the recognition of a dual, yet highly integrated educational continuum spanning the engineering-technology undergraduate and graduate curriculums.

Based on this report, most college and universities went on to associate under a single college or school the disciplines of engineering and technology. The curriculums were evolved with a singular focus. As time passed, theoretical instruction became more prominent and some of these colleges and schools pushed the technology portion of the curriculum to the peripheral, others simply eliminated technology altogether.

The College of Engineering's Division of Engineering Professional Education (ProEd) and the College of Technology's Center for Professional Studies in Technology and Applied Research (ProSTAR) share a common purpose, mission and vision. Underlying these is the fundamental premise that both serve the graduate educational needs of professional working adult learners in the STEM disciplines; this through credit and non-credit program offerings spanning the educational continuum of engineering and technology.

Both organizations, ProEd and ProSTAR, recognize the similarities of their mission and shared purpose to provide learning opportunities to those in technical professions with careers in progress. To this end, and aside from common policies, procedures and practices, both organizations recognize the significant commonality premised on space (facilities, equipment), distance infrastructure (distance classrooms, capture and delivery mediums), and the engineering – technology educational continuum (professional short courses, business/industry educational continuum needs). This richness in overlap creates an unquestionable synergistic opportunity for efficiency gains and cost savings.

In the spring of 2012, under the umbrella of a new President and renewed focus on being good stewards of taxpayer dollars and student tuition, two colleges opened discussions on collaboration. The manifestation of these many earlier discussions culminated in a more focused and targeted series of meetings to determine areas for collaboration and how that collaboration might look. Primary areas for collaboration, a result of these many meetings, centers on space, distance infrastructure and the engineering-technology educational continuum.

In reviewing the administrative units of the potential collaboration, it was determined the following best represents those primary functions performed by each.

- Marketing
- Recruiting
- Orientation
- Program delivery
- Registration
- Bursar (other outside unit)
- Continuing education through the university continuing education and conferences organization
- Graduate school (other outside unit)
- Financial aid (other outside unit)

While both of the target collaborating organizations perform the above functions and interface with those entities identified as other outside units, the two organizations do not perform these functions in the same manner. In the final analysis, it was determined there was an overlap in functions performed and "other outside units". This overlap, while intuitive on the surface, was deemed to provide opportunity and subsequent impetus for further collaborative study.

Additionally, figure 5.0 below depicts the flow of students into each of the administering organizations. This aides in understanding the student entry points into each educational curriculum. Because the entry requirements are more stringent for the engineering programs, the reverse flow of students is not expected. The recognized educational continuum however, was expected to, and subsequently has, provided greater collective enrollment because of transitional opportunities.

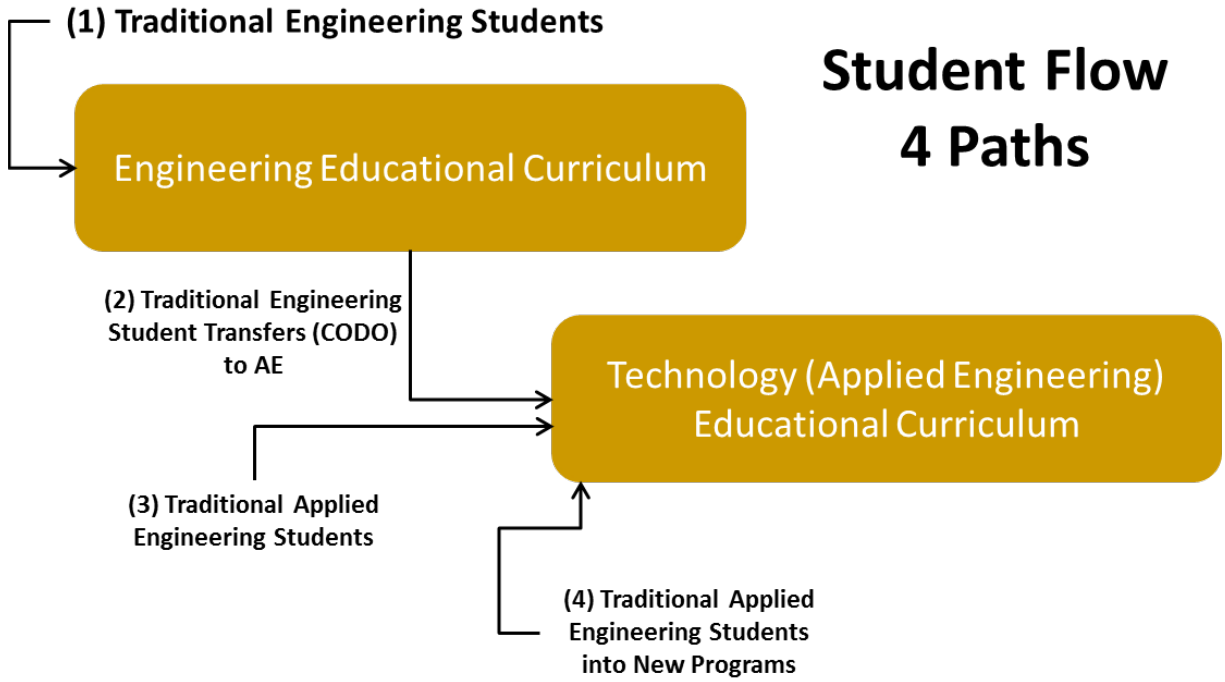

Figure 5.0 – Engineering-Technology Educational Continuum Student Entry Points

From the above analysis and through further study, figure 6.0 reflects the current perception of identically performed functions as well as the functions which could be, or are already, being shared across the two administrative organizations. The "bold" items below represent partially shared functions performed, and, in a few instances, shared resources (marketing, recruiting, receptionist, facilities and equipment).

Identical functions; performed similarly or slightly differently

- **Marketing**
- **Business Office support**
- **Receptionist responsibilities**
- **Recruiting**
- Orientation
- **Program delivery**
- **Registrar**
- **Bursar**
- Continuing education (PEC)
- Graduate school
- Financial aid
- **Facilities and equipment**

Items in BOLD are partially shared functions and/or resources

Figure 6.0 – Identically Performed Functions, and, Shared Administrative Resources

Concluding Thoughts

Scaling a maturing fee-based administrative organization, delivering professional programs to working professional adult learners, to maximize return on investment, required a fully aligned and synchronized, and, naturally derived and time-phased three-pronged approach: (1) being open to multiple mediums of increasing band-width delivery, (2) creatively visualizing, and performing a detailed job enrichment and enlargement analysis supporting backfill at the lowest levels, and (3) finding synergistic cross-university collaborations for efficiency gains and cost containment.

This paper examined a seventeen year history of distance delivery mediums and their corresponding strengths and weaknesses. In addition, this paper reflected the cost avoidance and cost savings from an exhaustively performed and executed detailed job enrichment and enlargement analysis[5] of members of a professional organization serving the needs of professional working adult learners. Finally, this paper discussed the synergistic results to-date of the single largest distance learning cross-college collaboration in the history of this tier 1 research university.

The continuation of an on-going concern is premised on a thorough understanding of the changing nature of the product or service being provided; in this specific instance it is the administration of fee-based distance programs for professional working adult learners. This paper has provided insight into those actions required to not only sustain, but grow ProSTAR as an administrative organization. Further changes will be required as the ever changing nature of distance education evolves and is understood within the context of existing practices.

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