



## **Growth through Service – A Longitudinal Four-Phase Natural Evolutionary Study of an Administrative Online Organization**

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## **Growth through Service –**

### **A 20-Year Longitudinal Study of a Four-Phase Natural Evolution of an Administrative Organization Serving an Online Population**

#### **Abstract**

February 2019, marked 10 years since the formal creation of the Purdue University, College of Technology's Center for Professional Studies. Ten years of positive growth in the number of professional working adult learners served. What a great year to be celebrating this milestone; aligned to Purdue University's 150<sup>th</sup> year sesquicentennial celebration!

Given the significance of this milestone, this paper provides a rich historical account of the evolution of the College's efforts to serve the many professional working adult learners of our great State and Nation. The paper will address the growth of enrollments and gross revenue as each of the four phases evolved and matured. It will further examine the positives and negatives of each evolutionary milestone; specifically addressing the challenges of each phase, operating as a profit/loss center within a public non-profit research university.

Phase I, in the fall of 1998, the College's Department of Industrial Technology took a lead role in implementing the first weekend master's program (WMP) 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). 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. Hence, the beginning of tuition-based versus fee-based program offerings.

Phase I, the initial on-campus distance-hybrid offering in the fall of 1998 spawned a comparable off-site instantiation of this sole modality in 2005.

Phase II, the 2005 instantiation was delivered in an off-site format at the location of a target corporate partner. This industry- and corporate-specific outreach instantiation provided for the first time, significantly increased outreach and enrollments outside of the main campus and the prior and on-going, on-campus, distance-hybrid baseline programs.

Phase III, began in 2010 when the online administrative organization, in collaboration with the academic departments, entered the distance education market with three semi-asynchronous distance programs. Semi-asynchronous distance offerings created a significantly greater outreach, one not bounded by geography.

The online administrative organization now enters Phase IV, the offering of 100%, globally available asynchronous delivered programs with highly evolved marketing and subsequent outreach. These new scaled program offerings place the unit at the precipice of great change once again. This new targeted emphasis on asynchronous global outreach is expected to realize challenges, as well as opportunities not previously experienced.

## **A Twenty-Year Historical Account [1]**

What follows is an historical context for the 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.

### **Phase I**

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 traditional on-campus tuition-based Master of Science with a major in Technology degree [2].

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 [3] 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 [4].

## **Phase II**

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.

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.

## **Phase III**

In 2010, ProSTAR, in collaboration with the academic departments, entered the distance education market with three 100% semi-asynchronous online distance programs. Distance offerings created a significantly greater market, one not bounded by geography. It was anticipated that most future growth providing the greatest opportunity for sustainment of an on-going administrative organization would materialize through distance delivery models.

The 2010 offering of online distance programs came in two noticeably different delivery methodologies: namely, synchronous and semi-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 modality of semi-asynchronous delivery, fixed, or removed, the barriers other predecessor synchronized program delivery models created. This delivery modality allowed the students to view the recorded modules, yet “sync” on when individual course assignments were due.

While the on-campus distance hybrid, on-site distance-hybrid, and 100% distance semi-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 1 depicts the enrollment growth from varying delivery modalities.

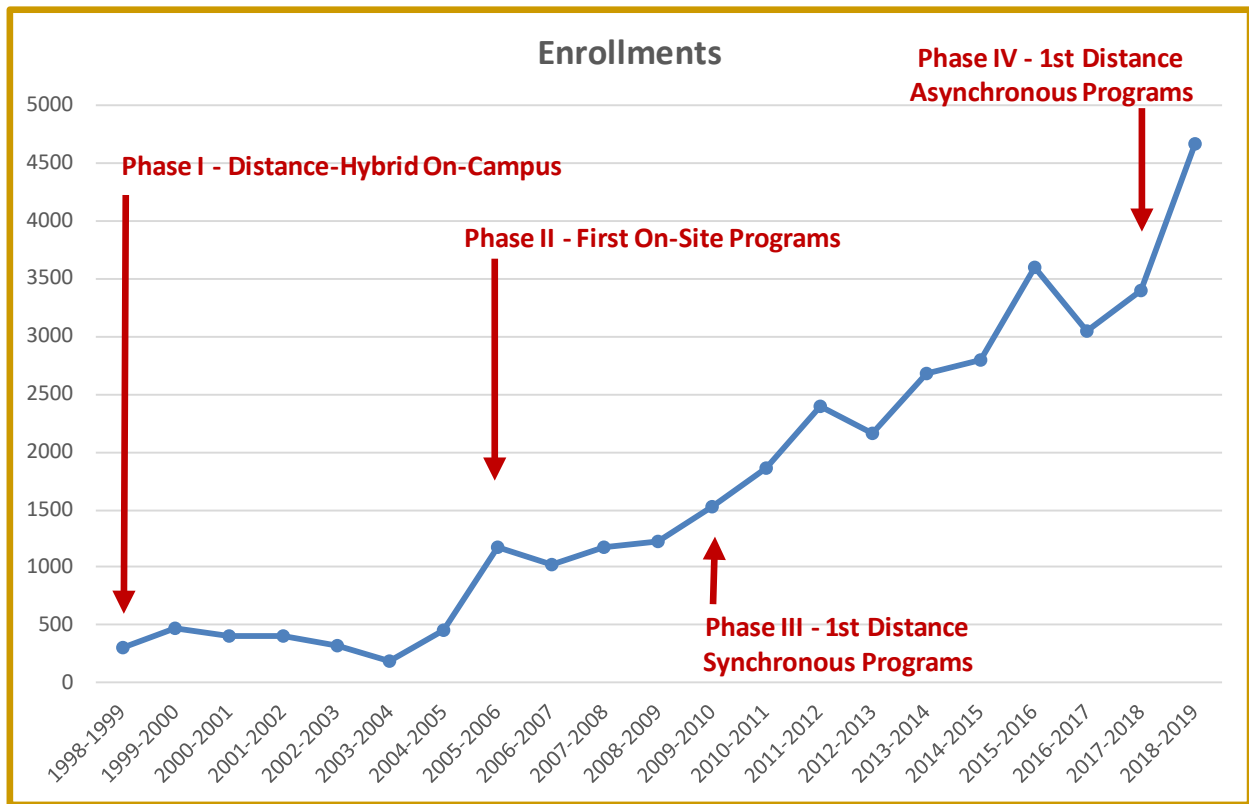


Figure 1 – Delivery Modality Induced Enrollment Growth

Figure 2 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			
2018 Distance Asynchronous Programs			

Figure 2 – Enrollment Limitations by Delivery Modality

### Organizational Design Models [7, p. 213]

Theorists have devised many ways to partition an organization into subunits, with the intent of improving efficiency. Additionally, the intent of partitioning an organization is to decentralize authority, responsibility, and accountability. The mechanism through which partitioning is accomplished is called “departmentalization.” In all cases, the objective is to arrive at an orderly arrangement of interdependent components.

Many basic management courses refer to the three-variable formula below:

- $\text{Accountability} = \text{Authority} + \text{Responsibility}$

Authority is the power granted to individuals (possibly) by their position in the organization, so they can make decisions for other individuals to follow.

Responsibility is the obligation incurred by individuals in their roles in the formal organization in order to effectively perform assignments.

Accountability is being singularly responsible for the satisfactory completion of a given assignment.

In the above formula, if an individual is given any two variables without the third, there is a high probability of some form of failure. Certainly, this seems most obvious when given responsibility and held accountable, but have no formal authority to execute. Likewise, authority and responsibility, without accountability, promotes subjectivity in decision making.

### Enrichment, Empowerment, Responsibility and Accountability [1, p. 6]

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/tactical 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/tactical 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.

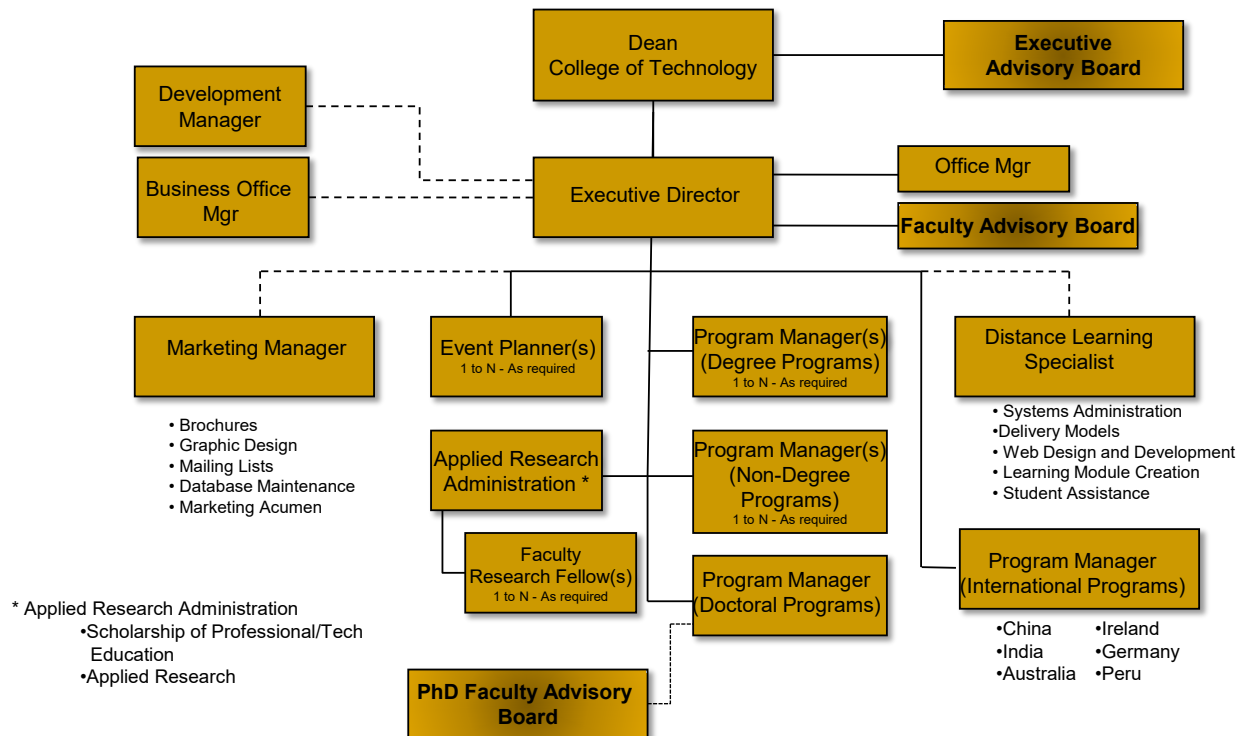


Figure 3 – Previous Generation Phase I – Phase II Organization Chart

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 administrator/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.

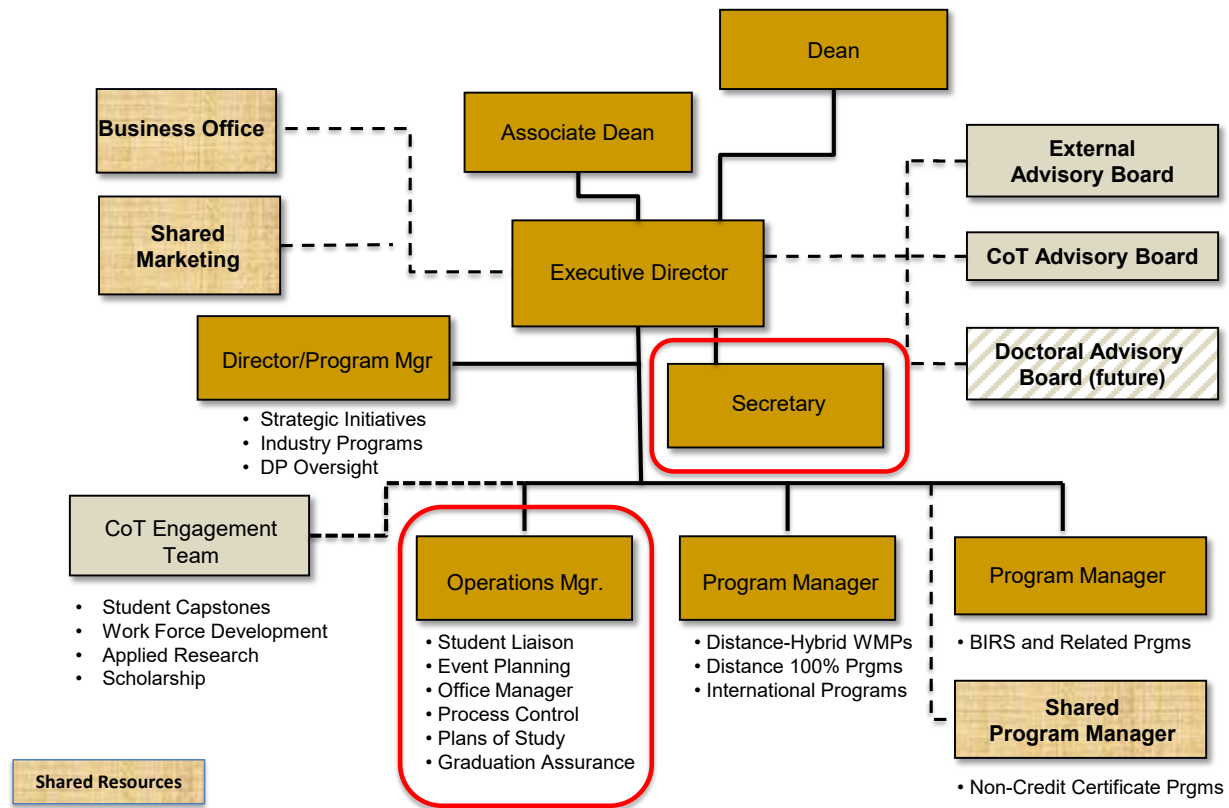


Figure 4 – Phase III Organization Chart after Job Enrichment and Enlargement Analysis

#### Phase IV

In an effort to collectively wrap university arms around online education, the collection of previously independent and interdependent college-level administrative organizations administering online academic programs were centralized under a single organizational entity. This new entity was organized as a matrix organizational design model. Whichever model is employed, it is critically important an overall strategy exists aligned to the model. Strategies include such things as information system infrastructures, physical plant and equipment, financial systems and certainly human resources.

As an organization matures through increasingly greater evolutions of growth, it typically evolves from a traditional model to potentially a product structure, and then into a matrix structure. The matrix structure is organized as functions along the vertical axis and programs, projects, colleges or other organizational entities along the horizontal axis; hence the matrix concept. The idea is money is made along the horizontal axis units, with resources supplied along the vertical functions. In short, functions provide resources to meet the needs of the

fiscally responsible horizontal units. From this perspective, program/project managers, business unit leaders or other horizontally organized profit/loss entities perform all of the typical management functions of planning, organizing, staffing, directing and controlling. However, being assigned the actual staff is the responsibility of the functional organizations. In other words, the horizontal profit/loss unit identifies the functions required to be successful, but makes these requests for human resources through the functions. Whether the function assigns a junior resource, experienced resource or senior resource is the function’s call; but, if the tasks are not performed adequately, there will be a most expected conversation between the functional lead and the profit/loss unit lead on the human resource assigned to perform the work.

Figure 5.0 below depicts an online organization superimposed over a matrix organizational design model.

Online Organization							
Colleges	Function #1	Function #2	Function #3	Function #4	Function #5	Function #6	Function ...#N
College #1	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment
College #2	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment
College #3	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment
College #4	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment
College #5	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment
College #N	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment	Functional Resource Assignment

Figure 5 – Matrix Structure with Online Instantiation Functional Depiction Overlay

In this online organization instantiation of a matrix organizational design model, the college leads (responsible for horizontal profit/loss centers) were made part of the online organization; meaning, they were administratively hardline to the head of the online organization.

Generally, the profit/loss organizations have a hardline to the profit/loss organization leads, while these same organizations are dished-lined to the online organization itself. In this manner, the profit/loss organization feels some level of assurance their lead has loyalty and commitment to what might be best for the profit/loss organization, and not be intentionally or unintentionally biased by the interests of the overarching online organization. The success of the profit/loss organization has an impact on everyone in the profit/loss organizational unit; in this instantiation

the colleges. To this end, the colleges should want to maintain an administrative hardline to their respective leads. Failure to do so, places the colleges themselves in a subservient role to the direction of the online organization lead; which may not be in the college’s best interest for long-term growth or sustainment, or, may run counter to branding integrity of the individual colleges.

Being a part of a matrix also requires each function have identified a well-defined process, depicting the many activities of the process as well as the attendant outputs of each activity. These many activities, then, are organized into a hierarchical breakdown of work referred to as the Work Breakdown Structure (WBS).

Once the WBS has been created, then a matrix can be created depicting the cumulatively defined work on the vertical axis and individuals performing the work within the function on the horizontal axis. Each function member, then, can reflect their fractional full-time equivalent (FTE) in the corresponding tiered elements (activities) of the original WBS, now depicted in the responsibility assignment matrix (RAM).

From these two entities, the WBS and RAM, human resource shortages and over staffing can be seen. Anything short of this process frequently creates what is commonly referred to as “knee-jerking” or “reactionary management”; where work, while well intentioned, is seemingly reassigned without consideration of fractional assignments or the above mentioned job analysis.

A partial example of one of these functional processes may be seen in the following drill-down WBS figures.

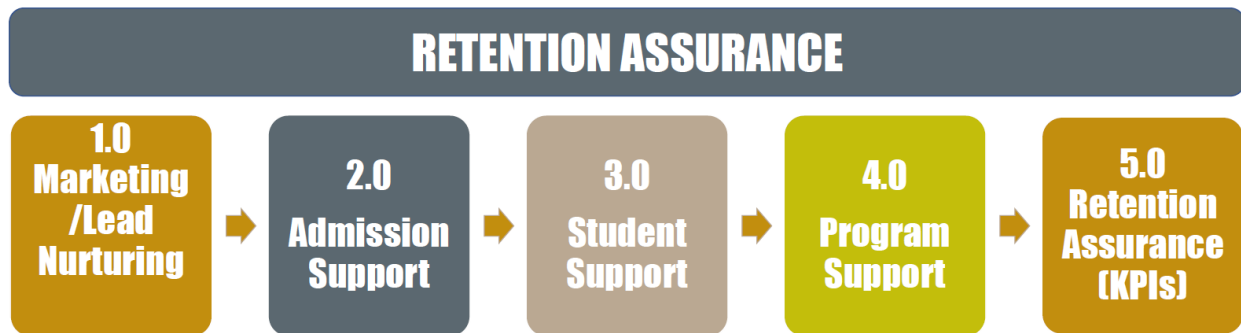


Figure 6 – Functional Level 1 Process Overview

# 1.0 Marketing/Lead Nurturing



Figure 7 – Drill Down of WBS Element 1.0

## 2.0 Admission Support

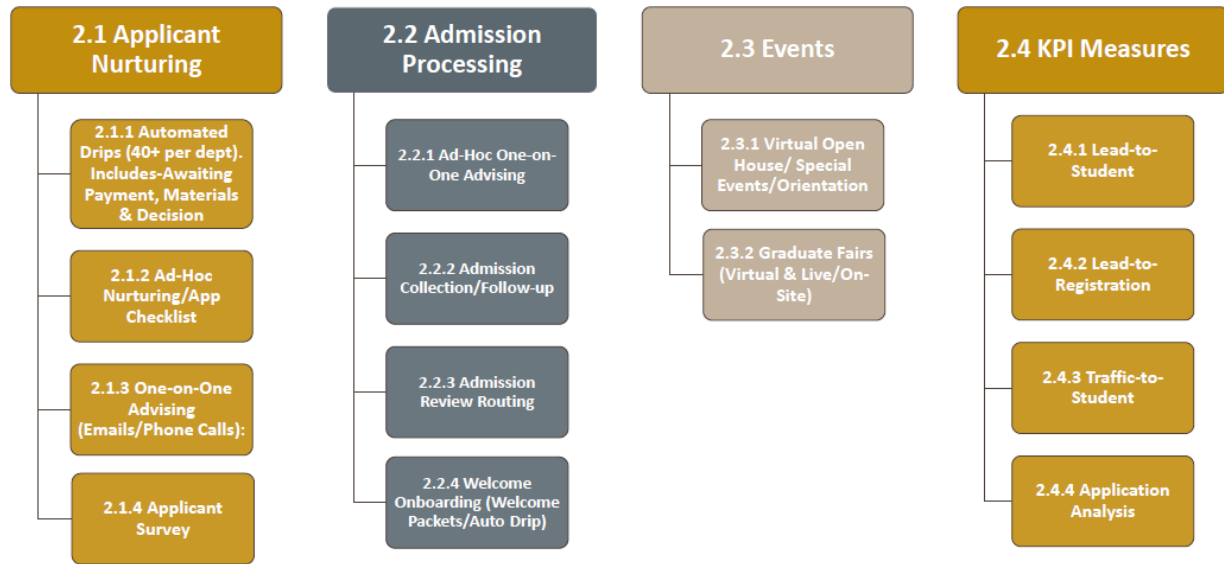


Figure 8 – Drill Down of WBS Element 2.0

### Concluding Thoughts

In examining the natural evolution of an administrative organization providing online programs to working professional adult learners, there are a number of considerations and implications.

Relative to the delivery modality, it is important to understand and subsequently consider the limitations and considerations of each type of delivery. While some delivery modalities solve issues such as geographical proximity, others may be employer bound, while still others may have real timeliness issues. Each delivery modality addresses each of these real limitations potentially differently.

Aligned to the delivery modality are the attendant implications on enrollments. As the above depicts, as the delivery modality requires less synchrony and less geographical proximity (face-time), the enrollments tend to quite naturally increase. This seems to align to logic premised on addressing a larger student audience, who would not normally otherwise be able to participate in the offered educational opportunity.

Additionally, to be considered is the manner in which the administrative organization is organized to perform the work required to deliver the academic department online programs. Historically, as the organization grows, so too should its organizational design model. Each model brings with it a number of positive and potentially negative implications. In the final analysis, there is no right or wrong model, just one that more or less fits to the manner in which the work is performed.

In this paper, the organizational design model employed at Phase IV was the matrix model. This particular model has significant benefits over other models in that human resources have a functional home department which accommodates the normalization of knowledge, skills, policies, procedures, practices and methodologies on a function by function basis. The functional home department also provides other employment opportunities across profit/loss units (colleges), in the unlikely event, for personal or professional reasons a given assignment to a college does not work out.

Of most interest in this particular online organization instantiation of a matrix model is the administrative hardline reporting of the profit/loss (college) leads to the functional online organization, versus, the college itself. While this may provide similar benefits to those of other functions of this model, it may also create contradictory goals and objectives to those of the college. Generally, profit/loss units want to maintain “control” over their lead human resources.

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