U.S. Postsecondary Faculty in 2015

Diversity In People, Goals And Methods, But Focused On Students

FTI CONSULTING™

Preface

A confluence of social, technical, economic, and other factors have created the demand for improvement and change in U.S. postsecondary education. Many of the drivers for change are quite prominent, and include access to postsecondary education, cost, and students' success. At the same time, many innovations are taking place, including numerous new modes of delivery, access, and instruction.

However, education outcomes are influenced at the micro level, where incredible variation among advisors, teachers, students, and methods leads to a process which is systemically difficult to map in detail, and hence to understand and support. In this environment, it is crucial to understand faculty members, both as stakeholders, and as potential creators and drivers of innovation, and as the direct, front-line drivers of student success.

While a large body of scholarship exists that examines faculty views, student perspectives, and many innovations, the research on the intersection of the faculty and student outcomes is less comprehensive. Moreover, while faculty attitudes have been studied extensively in the past, starting with Boyer in 1989, and continuing with studies sponsored by NCES and others through 2004 and later, we believe that a truly comprehensive perspective within the rapidly changing postsecondary landscape does not exist.

This work aims to fill the gaps in the knowledge by developing a greater understanding of postsecondary faculty, and their attitudes and beliefs as they affect pedagogical choices and impact student outcomes. The investigation focused on both the intrinsic and extrinsic motivational factors associated with perceptions of education held by postsecondary faculty in the United States.

The research illuminates how different internal and external factors (motivational, behavioral, contextual enablers/barriers, values, beliefs, and demographics) come together to influence faculty members' willingness to learn about new pedagogies, incorporate new ideas in their work, and spread new ideas regarding teaching and learning to peers and campus leaders.

The data reveal that faculty, while diverse in thought and identifiable demographics, and with varying needs, are generally goal-oriented with a high student focus and are actively transforming practices to benefit their students. Many faculty are actively implementing new approaches. However, the landscape of adoption is uneven, and for the most part does not map onto traditional institutional or other rapidly identifiable characteristics. A key outcome of our work is in identifying the less obvious factors driving change. Through this, we believe that we have identified basic groups among faculty who need different kinds of support, and the levers which will most effectively help each group in adopting changes that will improve student success.

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Executive Summary

Key Findings & Insights

Our work aimed to fill important gaps in the knowledge by developing a greater understanding of postsecondary faculty, and their attitudes and beliefs as they affect pedagogical choices and impact student outcomes. We believe this is crucial, as faculty are the key interface between the system and students, often the first to see student needs, and in any event, are crucial in developing and adopting approaches to meet these needs. At the same time, U.S postsecondary faculty are diverse personally, both within and across institutions. Consequently, while many conjectures and hypotheses exist with respect to faculty goals, objectives, and behaviors, there is not a systematic understanding of how these may differ across the professoriate, and how any differences affect the faculty behaviors which most affect student outcomes.

The investigation focused on both the intrinsic and extrinsic motivational factors associated with perceptions of education held by postsecondary faculty in the United States. The research illuminates how different internal and external factors (motivational, behavioral, contextual enablers/barriers, values, beliefs, and demographics) come together to influence faculty members' willingness to learn about new pedagogies, incorporate new ideas in their work, and spread new ideas regarding teaching and learning to peers and campus leaders. In sum:

- In general, faculty are goal-oriented with a high student focus and are actively transforming practices to benefit their students. Faculty were most influenced and motivated to adopt innovative techniques if the techniques ensured that students learn. As such, most faculty members make changes to assist students in the synthesis of information and the mastery of knowledge.

- Faculty members do not operate in a vacuum. In fact, in making pedagogical choices, there are many emerging techniques faculty are aware of but do not yet use for varying reasons. Barriers to adoption of these practices include the opinions of colleagues, as well as a lack of available time and resources, knowledge in executing the technique, and known or proven benefits of implementation.

- Moreover, the nature of the disciplines and course levels can also affect usage of pedagogical techniques. Some classes, such as those in business or the health sciences, are more likely to have seen adoption of certain new techniques, versus, for example the humanities. The same holds true for class level (developmental, general education, elective, and advanced courses).

- When viewed through traditional demographic lenses or approaches historically used to study the landscape, the faculty attitudes and perceptions which can affect adoption are relatively flat. There are some notable pockets of usage and innovation by discipline (business, nursing, English, professional/pre-professional studies) and by professional association event attendance. Nonetheless, a wholly new lens is needed.

- The lens we suggest through our research is driven more by hearts and minds than by demographic factors. Specifically, the factors that differentiate faculty are their disposition toward students, perceived leadership and institutional support, and their degree of connectedness with teaching.

- This framework identifies two distinct segments that account for over 40% of the faculty and are well poised to be adopters of techniques, tools, and behaviors which will benefit students. Of this entire group, half are already adopting some emerging practices, and may serve as exemplars to others.

- The remaining half is on the cusp of adopting. We have identified several approaches which can help unleash further adoption of student-beneficial practices, namely: connecting like-minded faculty, highlighting best practices and techniques where faculty members have organically innovated, and providing an evidence base for student outcomes.

We look at faculty through a new lens which shows that 40% of faculty have already adopted, or are ready to adopt, new techniques which benefit students.

Approach

Our Approach to the Project

This work aims to fill the gaps in the knowledge by developing a greater understanding of post-secondary faculty, and their attitudes and beliefs as they affect pedagogical choices and impact student outcomes.

While the separate bodies of scholarship on faculty and student outcomes are extensive, the research on the intersection of the two is less inclusive. Our work aims to fill the gaps in knowledge by:

- Informing how faculty prefer to engage in order to improve their teaching and learning practices;
- Illuminating what faculty really think about their roles;
- Identifying support that faculty need in order to enable student success;
- Mapping how faculty use and allocate their time; and
- Helping define segments and factions which can enhance or inhibit innovation.

Project Elements
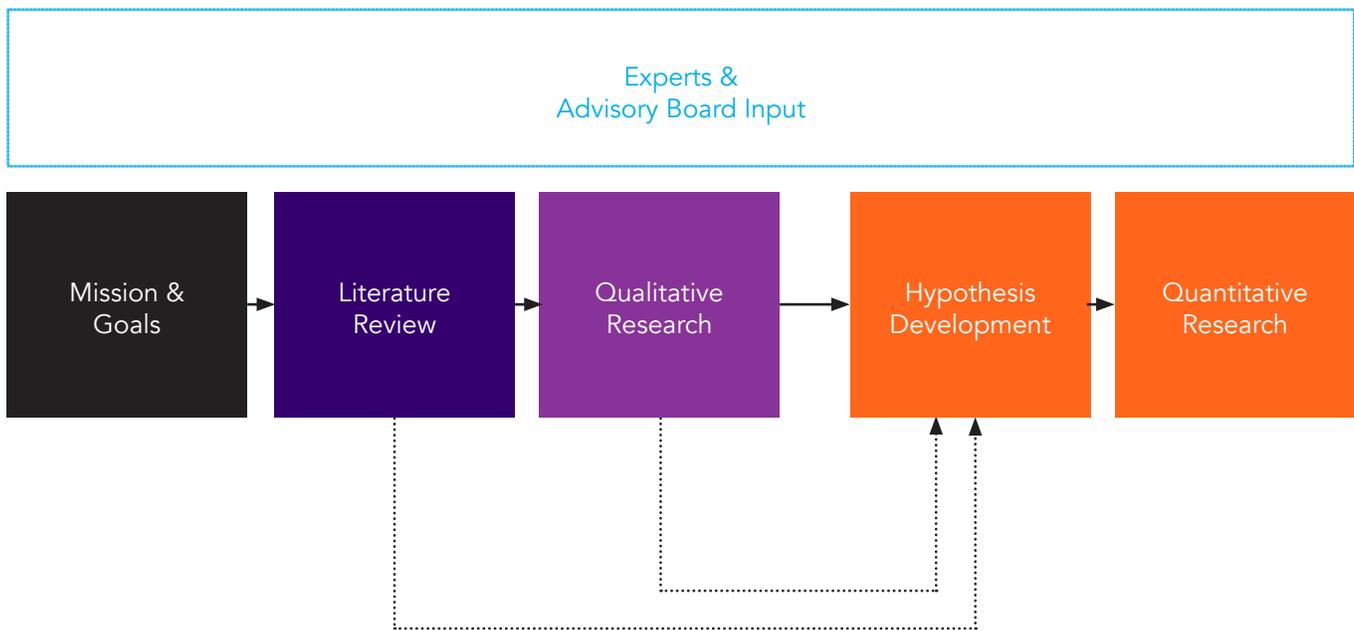
We believed that significant gaps existed in the literature. This is in part because it has been developed through multiple sponsoring organizations and individuals since the seminal work of Boyer in 1989, in part because other organizations such as NCES have scaled back faculty data collection, and in part because many individual researchers have conducted studies focused on one or a few issues. Consequently, we adopted a multi-phase approach, conducting a literature review and qualitative research to assist in our hypothesis development, followed by a large-scale quantitative survey.

While the focus of the work, and of this document, is ultimately on providing a robust, quantitative perspective on faculty views, we also briefly discuss our background research and hypothesis development approach.

Hypothesis Development

Our work began with a study of the body of knowledge pertaining to student outcomes in higher education. This included a keyword and topic based search of peer-reviewed journals in education and related areas, industry sources, and news sources. Based on this extensive review, we concluded that, while many authors had helpfully addressed pieces of the puzzle relating student success, its relationship to faculty, and, more specifically how faculty members' knowledge, attitudes, and behaviors come together to shape the experiences and outcomes of students, but there was no comprehensive viewpoint. However, from the literature, we did draw a set of factors which appeared to be key drivers.

We then conducted a total of 9 two-day online bulletin boards, or asynchronous focus groups, with 116 current faculty members or administrators, to verify and give greater substance to our preliminary findings.

Concurrently, we executed 20 in-depth interviews with experts in the field of post-secondary education to test our working hypotheses. We further refined our hypotheses through the periodic convening of an Advisory Board, which was comprised of elite researchers and faculty members who study various facets of post-secondary education.

From this constellation of past research, qualitative research, and in-depth interviews, we ultimately identified 6 major areas which affect attitudes and behaviors with respect to teaching and learning:

- Faculty attitudes and behaviors related to students and pedagogy;
- Student-faculty interactions;
- Institutional factors;
- Specific innovations and techniques;
- Personal influencers and networks; and
- Faculty demographics, context and trends.

While these elements are manifest, the complex ways in which they interact to drive behaviors are not. Understanding this connection will go a long way toward identifying an intuitive set of driving, enabling, and moderating factors to support faculty and ultimately improve student outcomes. Our quantitative survey was designed to draw these connections.

Quantitative Survey

The core of the work reported in this document is from our quantitative research. The survey was conducted online between October 6 and November 3, 2014. This was a stratified probability sample, using the 1.2 mm member MDR database of postsecondary faculty in the United States as a sample frame. Faculty were limited to those at institutions offering 2- or 4-year degree programs. Strata were defined based on institution type, discipline and geographic region, with n-th item probability sampling in strata. Results were weighted back to the overall universe.

A total of 3,971 questionnaires were completed. Data were collected by Ipsos and analyzed by FTI Consulting. Results shown, unless noted, are weighted to reflect the U.S.-faculty population as estimated by FTI Consulting, based on data from the U.S. Department of Education's Integrated Post-secondary Educational Data System (IPEDS) and related sources.

Note: Please see the Methodology Brief at the end of this document, or the separate Appendix for greater sample detail.

Background Research & Hypothesis Development

Summary Of Learning From The Literature Review & Qualitative Research

We performed foundational research to inform our survey. This background investigation in three parts included, first, a literature review, the findings of which guided the second process in the qualitative research, a set of online boards. Through these we developed a set of hypotheses. Concurrently, we conducted in-depth interviews with experts in the post-secondary education field to further test our working hypotheses.

Literature Review
Our literature review included both stand-alone surveys and surveys embedded as part of the methodology of various academic papers. We began with a universe of 3,600 articles, which we narrowed down by reading titles and abstracts to obtain a relevant and working bibliography of approximately 300 sources. We searched industry and association sites for specific reports, and obtained recommendations from Advisory Board members for additional resources.

The research for the literature review was conducted using a set of databases, search terms and criteria. Databases used included ERIC via EBSCO and ProQuest, and JSTOR. Other aggregators or tools included Google Scholar, ResearchGate, and SSRN. Further delimiters were year of publication were (2008 – 2014), language (English), location (United States) and education level (Higher Education, Postsecondary Education, Two Year Colleges, Adult Education). Search terms included the following, and were combined in various ways: "Faculty survey" (or study, studies); "Faculty attitude"; "Faculty beliefs"; "Student outcomes"; "Student success"; "Assessment"; "Perceptions" and "Pedagogy".

Qualitative Research
A total of 9, two-day online bulletin boards were conducted between May 12 and May 21, 2014. The Online Boards included 116 respondents, each of whom logged into the Boards twice a day. On average, the respondents contributed over 2 hours of active discussion time for a total of approximately 300 hours of respondent dialogue. Moderators posed a sequence of questions and clarifications were given as needed. FTI monitored and provided feedback throughout the sessions. Concurrently, FTI researchers analyzed, coded, and quantified responses.

We mapped the findings from our literature review, as well as the qualitative boards and interviews we conducted, to our thematic areas to illuminate the size of the research base and to inform the survey in order to fill gaps in the current knowledge base.

The foundational research had important implications for the survey questions. A recurring theme involved both the evolution in how students learn and what they expect from the classroom, and that faculty are passionate about teaching. There is, though, a lack of understanding as to why faculty do or do not adopt new behaviors to improve student learning. It was commonly surmised that how faculty deliver content, or how they actually teach, is just as important as the material they are teaching. Yet, despite high levels of faculty awareness and interest in new methods, adoption is significantly lagging. Some changes are clearly in play but faculty realize that the education system must become more flexible to meet student needs.

Moreover, not only is the student body changing, the faculty landscape is also evolving. There is little known about what the "new instructor" will look like, how they will behave, what they will act on, and what the effect on student outcomes will be.

Our background research revealed six key factors that guided our survey work.
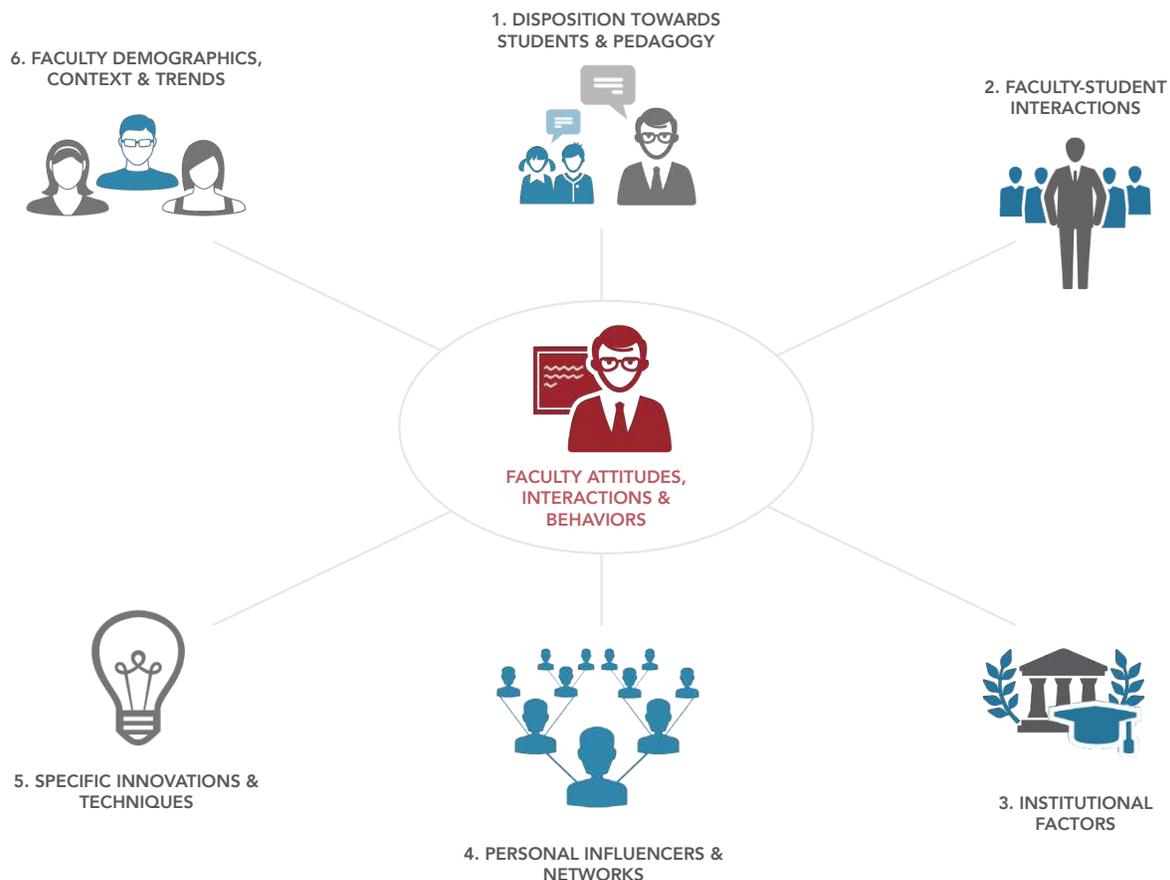
Six Key Factors

Based on the learning and implications revealed through the secondary and qualitative research, we created a six-point framework of major areas to guide our survey work. The key elements are rooted in both internal and external factors. We emphasize the interplay of the dynamics of the faculty member and the various competing forces from the outside on the choices to adopt and innovate.

- The principle themes consider the **individual**, and cover what faculty members think and do with respect to teaching and learning, and what faculty members think and do with respect to interacting with students.

- Moreover, the school itself plays a role. As such, we examine **institutional** factors and the manner in which the school(s) surrounding faculty affect knowledge, attitudes and actions. Just as the institution itself can make a difference, so do the views or actions of people with whom faculty members come into contact.

- These **influencers** include colleagues and other members within the faculty network. The nature of certain practices is also important.

- It is thus necessary to examine how the characteristics of specific techniques or **innovations** or changes affect decisions to adopt different methods.

- Lastly, the faculty members' identifying characteristics, or **demographic** and **contextual** factors, such as tenure or discipline, affect all of the preceding.

In summary, the attitudes, interactions and behaviors of the faculty are formed through their dispositions towards students and teaching, their interactions with students, the very institutions in which they operate, who is in their network and how plugged in they are, what these influencers themselves think and do, the particular techniques in play, and lastly, who faculty are.

A SIX-POINT FRAMEWORK OF MAJOR AREAS THAT GUIDED OUR WORK

6. FACULTY DEMOGRAPHICS, CONTEXT & TRENDS

1. DISPOSITION TOWARDS STUDENTS & PEDAGOGY

2. FACULTY-STUDENT INTERACTIONS

FACULTY ATTITUDES, INTERACTIONS & BEHAVIORS

5. SPECIFIC INNOVATIONS & TECHNIQUES

4. PERSONAL INFLUENCERS & NETWORKS

3. INSTITUTIONAL FACTORS

Summary Of Learning From The Literature Review & Qualitative Research

The six dimensions we identified provided multiple insights into faculty behavior. The degree of evidence, however, varied by dimension.

MAJOR AREA	1. DISPOSITION TOWARDS STUDENTS & PEDAGOGY	2. FACULTY-STUDENT INTERACTIONS
KEY LITERATURE REVIEW POINTS	• Delivery is as important as content. • Despite high levels of faculty awareness and interest in new methods, adoption is significantly lagging. • There is a lack of understanding as to why faculty do or do not adopt new behaviors.	• Research has established that faculty-student interaction drives outcomes. • But, little is known about why some faculty members interact with students more than other colleagues or about the nature of what is meant by "interaction."
SIZE OF RESEARCH BASE	MEDIUM	LARGE
KEY QUALITATIVE RESEARCH POINTS	• Student expectations and motivations are shifting. • There are concerns about how today's students want to learn. • Many faculty report being passionate about teaching and student interaction. • Some changes are in play. However, faculty and administrators realize more changes must take place.	• Little discussion regarding the connection between interaction and outcomes. • Faculty see their roles extending beyond the classroom as mentors. • Many are dissatisfied with, and frustrated by, the ways students want to interact versus how faculty want to interact. • Activities beyond instruction anchor students to the school and motivate them to succeed.

Summary Of Learning From The Literature Review & Qualitative Research (cont'd)

MAJOR AREA	3. INSTITUTIONAL FACTORS	4. PERSONAL INFLUENCERS & NETWORKS
KEY LITERATURE REVIEW POINTS	• Top-down attempts – such as implementing a "culture of teaching" or effective curriculum changes – do not work. • Little research exists about the impact of rewards or promotions on faculty behavior. • Little research exists on standards, procedures and protocols. • Very little research on faculty allegiance – such as institution, discipline, or union.	• Networks are critical influencers and facilitate diffusion of practices. • But, it is not well known who influences whom and how that influence is exercised.
SIZE OF RESEARCH BASE	MEDIUM	SMALL
KEY QUALITATIVE RESEARCH POINTS	• The system must change. • There remain serious barriers – such as time, support and resources – to adoption. • Little discussion about incentives to adopt practices. • Top-down attempts have not been successful.	• Networks and sources can, and often do, inspire change. • Conferences and professional groups are potential sources of influence and sharing

Summary Of Learning From The Literature Review & Qualitative Research (cont'd)

MAJOR AREA	5. SPECIFIC INNOVATIONS & TECHNIQUES	6. FACULTY DEMOGRAPHICS, CONTEXT & TRENDS
KEY LITERATURE REVIEW POINTS	• There is no lack of innovations in teaching. However, faculty need resources and evidence of success to implement. • There is little research on effectiveness across disciplines. • For any given innovation, there is little research behind what motivates trial of innovations & techniques.	• The faculty landscape is evolving. But, there is little about what the "new instructors" will look like, how they will behave, what they will act on, and what the effect on student outcomes will be. • Specifically, there is little research about what motivates "Contingent Faculty Members" (CFMs) and what support they do or do not believe they have. • There is little research about how institutions are changing and will continue to change.
SIZE OF RESEARCH BASE	LARGE	LARGE
KEY QUALITATIVE RESEARCH POINTS	• Instructors make changes to meet student needs and expectations. • Proven success promotes openness to new practices. • There are considerable mentions of experimenting with "flipped classes," "video."	• Level of institutional support varies. • The "least secure" faculty are the ones serving more of the fastest growing part of the student body, such as non-traditional students.

Quantitative Survey Elements

Survey Elements

In designing the survey, we aimed to better understand faculty attitudes, support systems, influences, and orientation toward adoption of methods.

We were interested in faculty behaviors focused on improving student success, based on identifiable context and demographic groups and on segments to be developed using the survey data. In addition, we also intended to identify drivers and inhibitors of adoption within these faculty groups for particular pedagogical methods or other student-facing activities. Moreover, we expected to isolate influencers, information sources, and critical points in time and hierarchies or coalitions of groups with similar or shared needs and interests.

Our 6 overarching hypothesis areas brought to light a concrete set of interrelated but distinct components that were tested in the survey.

- With respect to faculty disposition towards students and pedagogy, elements included views on the objectives of institutions (teaching versus research), the need for flexibility in order to adapt to students' needs, understanding student goals, learning needs, and pedagogy, and teacher training or preparedness.
- To examine faculty-student interactions, topics included time and effort spent on teaching, types, content and frequency of connections with students personally.
- Institutional factors consisted of resources provided for, time allotted to, benefits and rewards realized, and guidance available to adopt new teaching methods.
- Features related to influencers focused on the frequency and nature of connections with colleagues and the membership in personal and professional networks, how faculty seek support from others, and how they share knowledge.
- We also asked about adoption of specific techniques, level of classes in which such practices were deployed, and reasons for their use.
- Demographic and contextual components ranged from discipline to institution type, teaching status (full-time versus part-time), career stage (early though later), course level (developmental through advanced) and tenure status.

Survey Elements (cont'd)

We developed survey batteries and specific items to cover our six-point driver framework.

	INDIVIDUAL		INSTITUTION
MAJOR AREA	**1. DISPOSITION TOWARDS STUDENTS & PEDAGOGY**	**2. FACULTY-STUDENT INTERACTIONS**	**3. INSTITUTIONAL FACTORS**
SURVEY ITEMS	• The foremost objective of institutions like mine should be to help students learn. • It is critical for faculty to find ways to adapt to the needs and expectations of today's students. • The system needs to provide a more personalized approach to teaching and adapt to each student's needs and situation. • The system needs to be more flexible, adapting to each student's needs and situation. • I personally understand my students' goals for their education. • I was well prepared and trained in teaching when I began my teaching career. • I have a good understanding of teaching, pedagogy and students' learning needs'.	• I personally spend a greater amount of time and effort on teaching than other faculty. • At least once during a course, talk about career plans with you. • Seek your assistance and help with specific assignments and challenging topics. • Discuss personal or other non-academic matters with you which affect the student's ability to persist in achieving their academic goals. • At least once during a course, talk about career plans with you (Want More) • Seek your assistance and help with specific assignments or challenging topics (Want More) • Discuss personal or other non-academic matters with you which affect the student's ability to persist in achieving their academic goals (Want More)	• Faculty here are adequately rewarded for being good teachers. • I would be rewarded for increasing students' passing rates in my courses. • I would be rewarded for increasing student's learning in my courses. • I would be rewarded for developing new instructional methods designed to improve students' learning. • I have the time and resources to develop incremental improvements to my courses when I see potential benefits. • I have the time and resources to develop major changes to my courses when I see potential student benefits. • The institution's leaders have been effective in guiding and supporting changes in instruction. • Guiding and supporting changes in instruction which benefit students is a major activity of our faculty Senate.

Survey Elements (cont'd)

	INFLUENCERS	INNOVATIONS	DEMOGRAPHICS & CONTEXT
MAJOR AREA	**4. PERSONAL INFLUENCERS & NETWORKS**	**5. SPECIFIC INNOVATIONS & TECHNIQUES**	**6. FACULTY DEMOGRAPHICS, CONTEXT & TRENDS**
SURVEY ITEMS	• I frequently seek others' suggestions with respect to instruction and students' learning. • I have frequently made a point of seeking out others in my department to share teaching practices I thought they would find useful. • Participated in committees or Special Interest Groups on campus related to teaching. • Attended sessions or workshops focused on teaching, held in association with a professional society.	In Class Practices Usage: • Clickers • Flipped Classroom • Free Courseware • Paid Courseware • Hybrid • Online • Group Projects • Service Learning • Team Teaching • Collaboration – Skype or video • Collaboration – Social Media • Standardized Assessments • Control level • Course level	• Discipline & Association participation • Institution Type • Full-Time versus Part-Time • Career Stage • Tenure Status • Pedagogical Training

Note: For some of our analyses, several items are combined into multi-item indices.

Practices and drivers were studied in specific contexts, with faculty answering with reference to specific levels and courses they recently taught.

Faculty Through A Traditional Lens

Introduction

This is not the first study of faculty by any means.

Consequently, to provide a perspective on our findings, and our respondent views which can be mapped to existing results, we begin with several of the traditional lenses applied to faculty. Examples of traditional lenses include institution type, discipline, and tenure status.

> [I am frustrated by] Lack of support from administration/Large classes/unmotivated students.
> -FT instructor
>
> The lack of recognition from the institution. The administrators do not understand that the faculty perform the hard core functions of the university, teaching and research. Without teaching and research there is no need of administrator. Without administrators, our work would be harder, but It can be done.
> -FT instructor
>
> I find it very rewarding when a student who has struggled (and who usually has had a weak background in mathematics) takes the time to come to my office for help (and does the other things necessary to be successful) and grasps the material and demonstrates their understanding on assessments.
> -FT instructor
>
> Most of my frustrations are bureaucratic. The red-tape, the university rules, the school rules, and much of the classic pathologies of bureaucracy that invade my classroom are what get in my way.
> -FT instructor

A Traditional Lens: Key Results

Overall, faculty are student oriented. In fact, student focus is the highest rated among other attitudes tested in the survey. Related to this, faculty report that the system needs to be flexible, becoming more personalized to individual student needs. Interestingly, certain traditional demographics impact attitudes.

However teaching is largely viewed as unrewarded. Faculty report a perceived lack of inducements from their institution to change their teaching practices. Regardless of not feeling incentivized, faculty are beginning to implement a variety of student-beneficial techniques

Attitudes do vary somewhat by institution type. Faculty at for-profit institutions are more favorably disposed towards students. Individuals teaching at doctoral granting institutions are less so. That said, all institution types had little impact.

Discipline also plays a role. For instance, faculty teaching arts & humanities courses feel least inclined to increase their use of online or hybrid delivery methods. History professors are the most likely to say they desire more time and contact with their students, and English professors have the most time and resources necessary to make changes.

There are some differences by full-time versus part-time faculty and by tenure status as well. Part-time faculty are more inclined than their full–time counterparts to feel the system should exhibit greater personalization and flexibility and have a greater orientation toward student needs and goals.

Overall, when viewed through traditional lenses, the differences which exist do not have a major impact on classroom techniques. Through these lenses, the world is flat.

Summary Scorecard

A scorecard was created by bucketing various questions into condensed categories. The average score of answers to all the questions within a category was then calculated and used to more easily see and explain the trends in the data. The following is the overall scorecard analysis broken down into 6 categories which relate to our original framework: Disposition toward Students & Pedagogy, Interaction & Connection with Students, Institutional Factors, Discipline, Networks & Connection, and Delivery Model.

Of the attitudes that were tested in the survey, student orientation was the highest-rated overall. In general, faculty enjoy instructing and interacting with students, regardless of what their motivations for teaching may be. Faculty also say it is important for institutions to allow for personalization and flexibility (35%). Despite their positive outlook on teaching, most faculty believe that their teaching is unrewarded; only 5% say they do feel adequately rewarded by their institution. Motivation therefore comes from other factors, as many student-beneficial techniques are being adopted widely. For example, process support tools, such as courseware, are used for a wide variety of instructional tasks.

Simplified Scorecard Metrics

	Summary Variables	Average Top Box Score
Disposition	Attitudes toward system: personalization, flexibility	35%
	Understanding of student and needs, pedagogy, goals	30%
Interact & Connect	Current time and contact with students	34%
	Desire more time and contact with students	35%
Institution	Institution – rewards	5%
	Institution – time and resources	12%
	Institution – leaders	8%
Discipline	Discipline	21%
Networks & Connection	Seek out campus and department suggestions on teaching	15%
	Frequent participation in campus and disciplinary association workshops	18%
Delivery Model	Primarily use online or hybrid	11%
	Plans to substantially increase online, hybrid, technology	15%
	Online will offer personal and student benefits	11%
	Feel prepared to teach online	22%

Please see the Methodology Brief at the end of this document, or the separate Appendix for greater sample detail.

" I enjoy seeing students become able to understand concepts and ideas that are new to them, or that they previously could not master.

Summary Scorecard By Institution

The scorecard analysis shows limited variability when looking at results by institution type. Faculty teaching at for-profit institutions have a much more favorable disposition toward the system and students (50%), especially compared to publicly funded doctoral-granting institutions (27%). However, faculty at for-profit institutions report the least amount of participation in campus and disciplinary association workshops (11%). Overall, institution type has little impact on faculty perspective.

		Publicly funded, doctor-al-granting institution (n = 596)	Private, non-profit, doctor-al-granting institution (n = 397)	Publicly funded, primarily non-doctor-al institu-tion (n = 596)	Private, non-profit, primarily non-doctor-al institu-tion (n = 596)	For-profit institution offering 4-year baccalaure-ate degree program (n = 225)	Publicly funded 2-year (n = 1390)	For-profit institutions offering 2-year degree program (n = 172)	Total
Disposition	Attitudes toward system: personalization, flexibility	27%	32%	32%	35%	39%	38%	50%	35%
	Understanding of student and needs, pedagogy, goals	25%	28%	30%	26%	35%	33%	41%	30%
Interact & Connect	Current time & contact with students	30%	36%	30%	33%	40%	35%	49%	34%
	Desire more time & con-tact with students	34%	31%	36%	35%	34%	37%	26%	35%
Institution	Institution: Rewards	4%	6%	5%	7%	8%	5%	5%	5%
	Institution: Time and Resources	9%	13%	11%	11%	12%	12%	24%	12%
	Institution: Leadership	6%	7%	7%	8%	14%	9%	13%	8%
Discipline	Disciplinary leaders, and impact of disciplinary fit	19%	21%	22%	21%	21%	22%	26%	21%
Networks & Connection	Seek out campus and department suggestions on teaching	11%	13%	15%	15%	14%	16%	23%	15%
	Freq. participation in campus & disciplinary association workshops	18%	19%	20%	15%	19%	20%	11%	18%
Delivery Model	Primarily use Online or Hybrid	11%	7%	10%	8%	11%	13%	15%	11%
	Plan to substantially increase online, hybrid, tech.	13%	12%	14%	12%	13%	17%	19%	15%
	Online – personal, and student benefits	10%	7%	10%	8%	14%	13%	13%	11%
	Online – feel prepared	19%	13%	25%	19%	25%	26%	19%	22%

The coloring in the above illustration highlights points +/- 5 percentage points from the total (average) score.

> " I love research and I love teaching. I need to do both to feel happy.
> -PT instructor

Summary Scorecard By Discipline

Dividing faculty by discipline for this analysis sheds light on a number of trends and differences, and greater variation than institution type. Faculty teaching courses in the health sciences and nursing, as well as business and professional/pre-professional fields, use a variety of classroom techniques and courseware to support their classroom activities. Those faculty teaching arts & humanities courses feel least inclined to increase their use of online or hybrid delivery methods (12%). History professors are the most likely to say they desire more time and contact with their students (46%), and English professors have the most time and resources necessary to make changes (17%), relative to their peers.

		Engi-neering (n = 81)	STM (n = 934)	Soc. Sci. (n = 699)	Arts & Hum. (n = 453)	English (n = 327)	History (n = 130)	Bu-si-ness (n = 337)	Prof. / Pre-Prof. (n = 391)	Nurs-ing (n = 247)	Health Sci. (n = 220)	All Other (n = 220)	Total
Disposition	Attitudes toward sys-tem: personalization, flexibility	28%	33%	32%	34%	38%	27%	39%	42%	41%	35%	38%	35%
	Understanding of student and needs, pedagogy, goals	20%	27%	28%	29%	38%	29%	32%	37%	33%	27%	32%	30%
Interact & Connect	Current time & contact with students	35%	32%	28%	31%	39%	23%	32%	44%	48%	42%	35%	34%
	Desire more time & contact with students	41%	38%	37%	34%	34%	46%	40%	28%	25%	26%	32%	35%
Institution	Institution: Rewards	3%	6%	5%	3%	8%	7%	5%	4%	8%	6%	9%	5%
	Institution: Time and Resources	7%	13%	11%	8%	17%	12%	14%	13%	9%	9%	13%	12%
	Institution: Leadership	4%	7%	6%	6%	9%	5%	10%	10%	12%	10%	10%	8%
Discipline	Disciplinary leaders, and impact of discipli-nary fit	19%	19%	18%	21%	22%	18%	21%	24%	32%	25%	24%	21%
Networks & Connection	Seek out campus and department sugges-tions on teaching	10%	14%	11%	12%	21%	14%	12%	17%	25%	17%	25%	15%
	Freq. participation in campus & disciplinary association workshops	16%	17%	16%	17%	23%	19%	15%	19%	27%	21%	17%	18%
Delivery Model	Primarily use Online or Hybrid	0%	10%	11%	6%	9%	9%	19%	13%	12%	16%	11%	11%
	Plan to substantially increase online, hybrid, tech.	12%	13%	14%	12%	14%	15%	20%	14%	19%	16%	16%	15%
	Online – personal, and student benefits	7%	9%	9%	8%	11%	13%	19%	12%	16%	10%	9%	11%
	Online – feel prepared	12%	20%	24%	17%	24%	29%	32%	21%	19%	20%	22%	22%

The coloring in the above illustration highlights points +/- 5 percentage points from the total (average) score.

> " [My frustrations are] unmotivated disengaged students and the diminishing importance of liberal arts.
> -PT instructor

Other

Full-time/Part-time and Tenure Status
There are some differences by full-time versus part-time faculty and by tenure status as well. Part-time faculty have a slightly more favorable attitude toward the system's need to be personalized and flexible (38%) and toward student needs and goals (33%) than their full-time counterparts (32% and 28%, respectively). This group is also slightly more favorable toward online and hybrid, and sees the student benefits associated with these online tools.

Those who are not tenured (because no tenure track exists) overall have more favorable attitudes toward the system's need to be personalized (40%) and toward student needs and goals (36%). They also use online and hybrid most often (15%) with plans to increase that usage in the future (16%).

Overall, while these differences exist, neither the overall pattern, nor the magnitude of individual differences, suggest that this lens has a material impact on pedagogical behaviors.

Elite Schools
Surprisingly, faculty from the top-100 liberal arts colleges, and faculty from the top-100 colleges overall, do not stand out as exemplars. They are actually less disposed toward students' needs and goals, and less inclined to use online or hybrid tools. However, faculty from the top-100 liberal arts colleges in particular do feel more favorable toward and more rewarded by their individual institutions than their peers do.

Pedagogical Approaches: How Do Faculty Choose

Introduction

Our review of faculty through traditional lenses revealed lmited difference across institution types, and only lmited faculty by discipline and contract type or tenure status.

A natural question then is, are all faculty behaving similarly with respect to pedagogy? If not, who is doing what, and why?

This section provides our first view into this question, looking directly at pedagogy, choices and reasons.

> "
>
> I have changed assignments to involve more critical thinking efforts on the part of the students. "Challenging" (as opposed to efforts to "change") the ways student think has been the most successful.

Faculty Are Goal Driven

Educational goals, which are linked to student outcomes, drive the changes faculty are making; what they perceive as important complements what they actually do in practice.

However, the choices they make are diverse, in part due to different students and situations, and in part due to varied faculty knowledge, time, resources, and other factors.

One commonality is that a large majority of faculty use some kind of courseware for most tasks.

Courseware aside, with respect to specific delivery metthods and in-class tools, many techniques are familiar but still have not been tried by faculty. The trial and adoption of certain emerging techniques – such as free/paid courseware, external materials and standardized assessment – have specific drivers, some of which may be addressable.

Of drivers, course level has little impact, but certain disciplines, especially professions such as nursing, tend to lead in use of emerging tech.
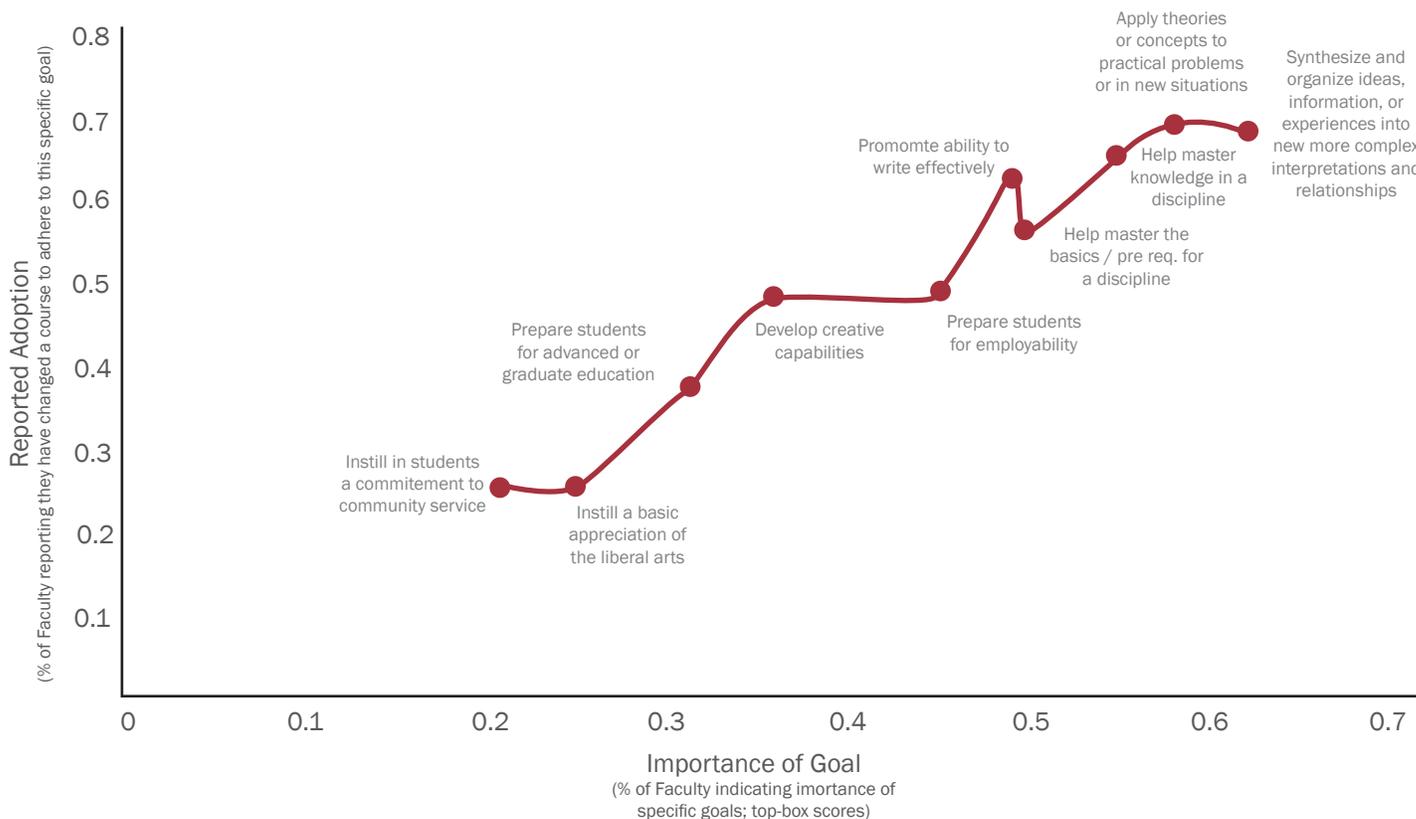
Faculty Are Goal Driven (cont'd)

Faculty have concrete educational goals with respect to student outcomes and have adopted techniques in order to meet their objectives. It is important to note that the greater the significance they attach to a particular goal, the more likely they report having implemented changes in order to meet said objective. Thus, what they perceive as important complements what they actually do in practice.

The most commonly cited reasons for making changes focus on teaching their students to synthesize and organize ideas, to apply theories or concepts to problems or to help students master knowledge.

Educational Goals

Scatter plot titled "Educational Goals". Y-axis: Reported Adoption (% of Faculty reporting they have changed a course to adhere to this specific goal), ranging 0.1 to 0.8. X-axis: Importance of Goal (% of Faculty indicating importance of specific goals; top-box scores), ranging 0 to 0.7. Data points labeled:
- Instill in students a commitement to community service (~0.2, 0.26)
- Instill a basic appreciation of the liberal arts (~0.25, 0.26)
- Prepare students for advanced or graduate education (~0.31, 0.38)
- Develop creative capabilities (~0.36, 0.49)
- Prepare students for employability (~0.45, 0.49)
- Promomte ability to write effectively (~0.49, 0.63)
- Help master the basics / pre req. for a discipline (~0.5, 0.56)
- Help master knowledge in a discipline (~0.55, 0.66)
- Apply theories or concepts to practical problems or in new situations (~0.58, 0.69)
- Synthesize and organize ideas, information, or experiences into new more complex interpretations and relationships (~0.62, 0.69)

Goals And Student Needs Drive Adoption, But Success Is Important

Relative Importance

1   I personally believe the approach would benefit my students
   69%

2   I understand the approach well enough to implement it effectively
   46%

3   It would address specific suggestions or needs identified by students
   42%
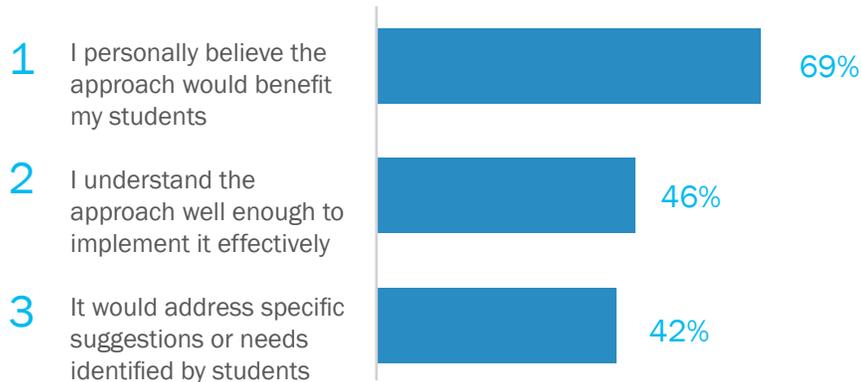
When faculty consider making changes to their courses, the most important deciding factor is believing it will benefit their students (69%). And despite varying degrees of importance, the same factors are significant for each course level.

Interestingly, the factors that are most important to adoption vary depending on the technique in question. While time and resources are crucial, better faculty understanding of benefits and tools to ease implementation could drive adoption for many techniques. And, while goals are important, faculty success with a technique is equally so. Only 14% of faculty reported a strong agreement that they were satisfied with the new technique, but 50% of those who were highly satisfied suggested making an actual recommendation to other to adopt.

> Required students to serve in community endeavors, include in course readings and discussion on social and economic equity, apply learning theories to field-base course work through explicit means.
> -FT, Pub 4yr, Non-tenured

Across Course Levels and Institution Type, Faculty Focus On A Few Key Objectives

Faculty focus on a few key pedagogical objectives: Teaching students to synthesize and organize ideas is the most important (62%), followed closely by teaching students to apply theories or concepts to practical problems or in new situations (58%). Faculty teaching at 2-year colleges often placed more importance on many educational goals than their 4-year counterparts. And, faculty teaching advanced-level courses also placed more importance on most educational goals than those teaching developmental education, general education, or elective courses.

Importance of Educational Goals	Total	Course Level				Institution	
		Dev. Ed. (n = 179)	Gen. Ed. (n = 1,222)	Elective (n = 622)	Advanced (n = 1,296)	4-Year (n = 2,411)	2-Year (n = 1,564)
1 Synthesize and organize ideas, information, or experiences into new, more complex interpretations and relationships	62%	59%	59%	61%	67%	50%	64%
2 Apply theories or concepts to practical problems or in new situations	58%	47%	51%	59%	68%	48%	50%
3 Help master knowledge in a discipline	55%	55%	42%	52%	70%	49%	55%
Help master the basics / pre-requisites for a discipline	50%	72%	49%	45%	50%	51%	67%
Promote ability to write effectively	49%	60%	48%	46%	50%	48%	59%
Prepare students for employability	45%	53%	35%	34%	60%	33%	57%
Develop creative capabilities	36%	29%	32%	38%	41%	35%	36%
Prepare students for advanced or graduate education	31%	31%	21%	29%	42%	22%	33%
Instill a basic appreciation of the liberal arts	25%	19%	33%	29%	17%	28%	24%
Instill in students a commitment to community service	21%	19%	17%	19%	26%	16%	20%

Based on top box percentages at bottom of every table.

> I have changed assignments to involve more critical thinking efforts on the part of the students. "Challenging" (as opposed to efforts to "change") the ways student think has been the most successful.

Adoption Of Pedagogical Techniques Remains Uneven

The adoption ladder below shows several techniques with substantial trial and adoption rates, but also many viewed as not relevant or not tried as of yet. The top innovations and techniques tried and adopted are group projects (74%), flipped classroom (46%), using free courseware to augment content (43%), and using standardized assessment tools (39%). Most faculty are aware of clickers, team-teaching, collaborative tools like Skype, and hybrid courses – however, they have not yet tried these options.

That most techniques have a familiar but untried level of 40%-60% is striking.

Specific innovations and techniques trialed and adopted	Not familiar enough to rate this	Familiar but not relevant or have not tried	Trialed	Adopted
Using "clickers" or other means such as electronic quizzes to obtain student responses in real time	11%	64%	10%	12%
Showing short online video lectures to students before the class session, while in-class time is devoted to exercises, projects, or discussions (flipped classroom)	6%	47%	17%	29%
Using open-source (free) courseware or similar instructional materials to augment content	14%	42%	16%	27%
Using external (paid) courseware or similar instructional materials to augment content	18%	49%	10%	20%
Hybrid courses, with over 30% delivered online and in-person	8%	58%	11%	20%
Fully online course delivery	9%	57%	7%	24%
Incorporating group projects	2%	20%	18%	56%
Courses incorporating service learning or other experiential learning	14%	49%	13%	23%
Team-teaching classes across two disciplines or two typically distinct subjects within a discipline	13%	63%	12%	10%
Using collaboration tools (such as Skype or video) to encourage in class or real time interactions	9%	63%	13%	15%
Using collaboration tools (such as Twitter or other social media or discussion forums) to encourage online participation or interaction outside of the classroom	9%	56%	12%	20%
Using standardized assessment tools to gauge student performance	9%	48%	12%	27%

Notes: Coloring calls out most significant items in each column; unless otherwise specified, data are pooled across all 2-year and 4-year institutions and PT/FT faculty. Question 8 was asked in the frame of a specific course level in which faculty member teaches; adoption measured here with respect to a specific course and level the faculty respondent recently taught in.

> I started using an approach that lets students select assignment from a menu of options to earn points toward a grade. This encourages them to take more ownership in their own learning. It also promotes more project based learning where students learn to read about a problem, design a method for solving it and then write about the result.
> -FT, Priv. 4yr, Tenured

Courseware Is Used To Support Most Tasks, But Use Of Other Pedagogical Devices is Uneven

Digital tools are common adaptations to augment or enhance instruction methods. In particular, many faculty use both free and paid courseware, standardized assessments, and hybrid/online classes. Courseware itself is used for a wide variety of purposes, including assigning homework (74%), evaluating (71%) and grading students (73%), communicating with students (78%), and distributing class materials (77%).

In Class Practices	Average Top Box Score (Tried or Adopted)
Clickers	22%
Flipped classroom	45%
Free courseware to augment content	43%
Paid courseware to augment content	30%
Hybrid	31%
Online	31%
Group projects	74%
Service learning	36%
Team teaching	21%
Collaboration – Skype or video	27%
Collaboration – social media	32%
Standardized assessments	40%

Courseware	Average Top Box Score (Used)
Structure & syllabus	65%
Aux. video, lectures, etc.	77%
Homework & out-of-class exercises	74%
Evaluation materials	71%
Homework & evaluation exercises	73%
Develop exams	71%
Deliver instruction	72%
Evaluated individual student progress	74%
Collected individual student assignments	75%
Graded periodic homework, exercises, or problem sets	73%
Communicated feedback to students	78%
Graded examinations	67%
Assigned final grades	82%
Set up a course within a CMS	85%

- The discipline that a faculty member belongs to has a substantial impact on whether or not they use certain techniques. Nursing faculty lead in adoption overall, especially when considering standardized assessment (71%) and flipped classroom (66%).

- It is important to note that there is little variance between institution types on emerging techniques, however public 2-year colleges rank highest on most.

- Those who teach developmental education classes also lead adoption on various techniques, especially on standardized assessment (50%). Interestingly, those teaching general-education courses have adopted online teaching methods more than their counterparts (34%).

How Do Faculty Learn About New Techniques?

When faculty are interested in improving their teaching, colleagues and peers are common sources they consult. Nearly half of all faculty participate in teaching-related groups on their campus, and close to two-thirds of those who regularly attend association meetings take part in teaching-focused sessions.

46%
of total faculty participate in Committees or Special Interest Groups on campus related to teaching

| **70%** of faculty… Involved in Disciplinary Society n=2,763 | → | **71%** of those involved in disciplinary societies… Attend Meetings Regularly n = 1,956 | → | **71%** of those attending meetings… Attend Teaching Focused Sessions n=1,380 |

Faculty are less likely to use their on campus Teaching & Learning Center for teaching specific activities or issues. Only two-thirds of faculty are aware of a T&L Center on campus; of those, less than 4-in-10 use it for insight into learning science or how students learn.

68%
of total faculty are aware of a Teaching & Learning Center on campus
n=2718

| **38%*** For insight into learning science / how students learn | → | **28%*** For assistance in curriculum development | → | **21%*** To observe a course and provide coaching |

* Percent of those using the T&L Center

However, many faculty members share their thoughts on teaching and instructional methods with colleagues. In particular, over one-third say they seek others' suggestions with respect to instruction and student learning, and another third say they seek others out to share interesting and useful practices.

	I seek others' suggestions with respect to instruction and students' learning	Others would seek my suggestions with respect to improving their instructional methods	Members of my department frequently share classroom practices they have found to be successful	I frequently made a point of seeking out others in my department to share teaching practices I thought they would find useful
Strongly agree*	15%	12%	15%	15%
Agree**	36%	31%	32%	33%

(N=3,975) * Top Box, ** Top 2 Box

Viewing Faculty Through
A New Lens

Introduction

Our earlier analysis showed limited variation in faculty views, when most traditional lenses (such as institution type and discipline) were used.

Yet, there is substantial variation in adoption of new pedagogical techniques. Consequently, we ask, are there characteristics of individual faculty which help explain behaviors?

This section introduces a new framework, segmenting faculty based on their views of students, their institutions, and their connections with colleagues. This new approach provides significant insight.

A New Segmentation Of Faculty, Focused on Pedagogical Adoption

In this section we develop a segmentation analysis to provide insights into varied opinions and behaviors, as the traditional demographic descriptors of faculty are inadequate predictors of adoption.

We primarily segmented based on perspectives covering student focus, all institutional elements, and networking and connections.

Three "meta" audience categories emerged on a continuum, ranging from Champions to Prospectives to Opponents: The Teachers and The Executors, The Willing and The Disconnected Skeptics, and finally, the Principled Opponents and The Research Minded.

They can be considered across a range of orientation and adoption, from those most oriented to students and pedagogy and therefore open to adoption of techniques (The Teachers) to those less so (The Research Minded).

The segments differ based on knowledge, attitudes, behaviors and situations. As such, the segments vary in both their use of student-focused practices, in the expected reasons for this behavior, and the resultant expectations for adoption. We profiled the discovered segments on behaviors including adoption of key in-class techniques, use and creation of courseware for key tasks, and use of resources such as teaching and learning (T&L) centers and workshops.

Resulting differences in behaviors broadly aligned with segments.

Following segmentation, supplemental advanced analytics were conducted to identify any groups within segments most amenable to adoption which might be accessible and/ or addressable through specific venues such as particular professional meetings or whose characteristics might identify addressable groups, and also to shed light on reasons for some behavioral differences within key segments.

6 Final Segments

| CHAMPIONS | Teachers |
	Executors
PROSPECTIVES	Willing
	Disconnected Skeptics
OPPONENTS	Principled Opponents
	Research-Minded

While segments appear across all faculty, some are more often populated by various disciplines, part-time versus full-time, or institution types.

The segments are predictive of behaviors both with respect to adoption of techniques, and degree of connecting, networking, and learning about pedagogy.

The Primary Determinant Of Faculty's Perspective Revolves Around How They View Students, And How They View Their Institutions

There are a few key groups and venues where target faculty are somewhat more likely to be found.

(Elipses indicate the placement and spread of groups; not in proportion.)
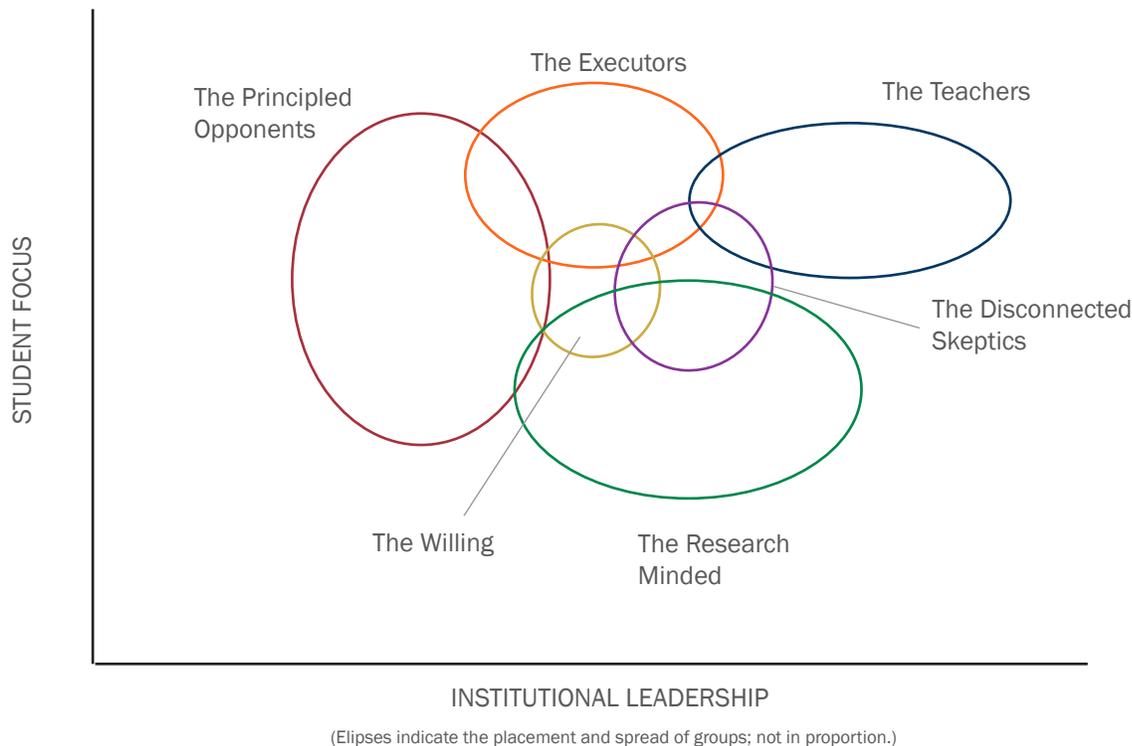
The Teachers - 23%

- Students are their priority
- Connected and Networked
- Use digital tools
- Higher on Health Sciences

The Executors - 19%

- In tune with students
- Participate in committees/wkshops
- High usage of digital tools
- Higher on Health Sciences
- Much higher full-time

The Willing - 12%

- In tune with students
- Participate in committees/workshops
- High usage of digital tools
- Higher on Health Sciences
- Much higher full-time

The Disconnected Skeptics - 26%

- Little student interaction
- Unrewarded and low on institutions
- No plans to increase digital tools
- Disengaged from discipline and networks
- Don't see benefits of adoption

The Principled Opponents - 13%

- In tune with students
- Participate in committees/workshops
- High usage of digital tools
- Higher on Health Sciences
- Much higher full-time

The Research Minded – 7%

- Least student focused
- Disconnected from teaching colleagues
- Least likely to use digital tools

Segments Vary In Both Intensity of and Patterns in Attitudes

The segments span a range of knowledge, attitudes, behaviors, and leverage points and capture diverse faculty perspectives in groups which have better potential to provide insight into instructional views and behaviors.

Segmentation is, in fact, predictive of important behaviors, and is especially useful in forecasting who will use emerging techniques and who is more likely to network or connect with others on topics related to pedagogy.

		CHAMPIONS		PROSPECTIVES		OPPONENTS	
		Teachers n = 901	Executors n = 758	Willing n = 484	Disconnected Skeptics n = 1,031	Principled Opponents n = 521	Research-Minded n = 276
Attitudes	Student Orientation	42%	40%	36%	29%	27%	7%
	Student Interaction	36%	40%	35%	32%	33%	26%
	Institutional Rewards/ Support	16%	3%	1%	3%	2%	3%
	Time & Resources	26%	7%	17%	7%	1%	7%
	Institution: Leaders	24%	4%	5%	3%	1%	5%
	Discipline	29%	24%	20%	17%	19%	14%
	Networks and Connecting	28%	29%	8%	8%	9%	11%
Behaviors	Emerging Methods	27%	25%	26%	21%	22%	17%
	Techniques Tried or Adopted	43%	43%	32%	32%	31%	25%
	Courseware	79%	79%	71%	71%	71%	62%

Champions: Most Likely to Adopt
Teachers and Executors

The top two targetable segments (The Teachers and The Executors) comprise over 40% of the faculty and are characterized by a significant key factor. They have adopted more than one student-focused practice for regular use, specifically designed to meet specific student needs. In fact, half have already adopted some nascent practices.

When comparing segments to each other, certain distinctive exemplars stand out from their peers. The Teachers rank the highest of all segments across most components in our framework and comprise approximately one quarter of our audience. A significant proportion, they are the most inclined toward their students. They are both decidedly student oriented and have high interaction with those they teach. They are in tune with their needs and goals more than other segments, stating that the system should be more flexible. They feel prepared to effectively connect with students, and already do so to a great extent.

The Teachers are also more favorable toward their institutions, reporting the highest rate of feeling rewarded and the most time and resources to make changes to improve their courses. They are also more likely to be in the health and social science disciplines.

They are highly connected with other faculty, as they seek others' suggestions on teaching and participate in committees and workshops often.

Furthermore, this segment is optimistic about the benefits of online learning and is also open to digital tools. A little over one third have tried or adopted online learning. Over half (56%) of The Teachers have tried or adopted a flipped classroom, close to half (48%) have tried or adopted standardized assessment practices, and 40% have tried or adopted a hybrid classroom. Utilization of these techniques is higher among this segment.

Following closely behind the Teachers, the Executors – which make up nearly one fifth of our audience – are the next highest in student orientation. While they comparatively report the highest interaction, they desire even greater contact. However, they rank considerably lower than The Teachers and are more in line with other segments with respect to their Institution. Despite the fact that they feel unsupported by their institution and lack time and resources, they are more likely than most other segments to visit the T&L Center for advice. Participation in committees and workshops is also high.

They use digital tools and expect to increase adoption of hybrid/online teaching. At 38%, they are, in fact, the most likely among the segments to try or adopt online teaching. They also, comparatively, use more free courseware (51%). Notably, they are more likely to be full-time faculty than other groups. Furthermore, the full-timers within this segment spend more hours on undergraduate instruction, teaching more than their peers. Nearly one-third of the Executors teach 9 or more sections, and more than one-quarter teach more than 6 courses, outperforming all other segments. Even in the part-time group, the Executors stand out as teaching more sections and more courses than others. Nearly one-fifth teach 9 or more sections. They also spend more time on undergraduate instruction than their peers.

Prospectives: The Middle Ground
The Willing And The Disconnected Skeptics

The middle of the road segments (The Willing and The Disconnected Skeptics) make up a little under 40% of the faculty and are characterized by a key trait. They have adopted more than one student-focused practice for regular use, but with a less comprehensive student-centered philosophy. In addition, they exhibit more limited use of specific student-focused practices, but are potentially open to change.

While The Willing fall in the middle in terms of orientation to students, they express a desire to have more student interaction. The Willing say they have the time and resources to improve upon teaching, yet this group is least satisfied with institutional rewards and support. As they are more likely to be part-timers and teachers at 2-year colleges, they do not feel connected to networks and barely attend workshops. Faculty in this segment are tech savvy, express expertise with and feel favorably toward incorporating more digital tools.

Less student-oriented than their peers, The Disconnected Skeptics, forming the largest segment in our audience at slightly more than one quarter, have relatively little student interaction and do not desire more. While they say they have the time and resources necessary to make changes, they doubt they will be rewarded for doing so.

Attendance at workshops is low for this group, and they are disengaged from their discipline. The Disconnected Skeptics report below-average intent to increase use of digital tools, and low usage of T&L Centers. Unlike the three segments before them, they do not believe they will see any benefits from changing methods or techniques.

Opponents: The Most Challenging
The Principled Opponents And The Research-Minded

The segments at the other end of the continuum (The Principled Opponents and The Research- Minded) comprise a smaller percentage of faculty (only 20%) and are characterized by their much more limited use of specific student-focused practices, either due to active cynicism or lack of support.

The Principled Opponents believe they spend a greater amount of time and effort on teaching than most faculty. They are not highly student oriented, and they do not see rewards or support from their institution. They also say they lack strong institutional leaders to support changes in instruction. Trial or adoption of courseware is rare, and use of digital tools is low. The Principled Opponents do not see the benefit of these tools, and therefore do not intend to increase their usage in the classroom. The part-timers in this segment also spend more time involved in undergraduate instruction at a second institution than others.

The Research-Minded comprise the smallest group and are the least committed to students and teaching; research is selected as their top priority more than any other segment. They have the lowest level of interaction with students and do not desire more contact.

They feel disconnected from colleagues when it comes to exchanging ideas on teaching methods, and attendance at workshops is very low.

These faculty are the least likely to have tried digital tools and do not feel the need to do so in the future. Only approximately one fifth use hybrid or online teaching practices. This is the lowest across segments.

They are more likely to be tenured, full-timers at public doctoral-granting institutions. They spend the least amount of time in undergraduate instruction and the most in purely research-focused activities. This also holds true for the part-timers in this segment.

Among Champions, Adoption Still Partial

Furthermore, it is important to note that even within those segments that represent the highest potential for implementation, namely The Teachers and The Executors, adoption of certain techniques remains partial, and is driven mostly by knowledge of a practice and impacted by their professional connections and support.

When considering the adoption of at least one of the following techniques – flipped classroom, free or paid courseware, or standardized assessment – compared to non-adopters, adopters report that they are well versed in pedagogy and are prepared to utilize different practices. They not only have the time, resources, and guidance from leaders to utilize one of these techniques, but they also believe that they will be rewarded for doing so. They are also networked to a greater extent than non-adopters, whether they seek the opinions of others, attend workshops, or use the T&L Center.

Within Teachers & Executors

		Not Yet Adopting (n = 726)	Those Who Have Adopted (n = 932)
Preparation	I have a good understanding of pedagogy and students' learning needs	49%	57%
	I feel adequately prepared to effectively teach students in online classes	23%	31%
Discipline	Many new instructional practices will not apply well in my discipline (reverse)	14%	24%
Institutional	I have the time and resources to develop major changes to my courses	13%	18%
	I would be rewarded for developing new instructional methods to improve learning	9%	13%
	I have the time and resources to develop incremental improvements to my courses	16%	21%
	Institutional leaders effective in guiding and supporting changes in instruction	19%	14%
Networks & Connecting Behavior	I frequently seek others' suggestions with respect to instruction and learning	28%	32%
	Participate in campus teaching committees or SIGs, > 2x in 18 months	22%	34%
	Attended teaching workshops with a professional society more than 2x in 18 months	25%	41%
	Used Teaching & Learning Center for Curriculum Development	32%	39%
Demographic	Full-time	39%	60%
	Tenured	15%	23%
	Nursing and Health Sciences	13%	18%
	Public Doctoral	11%	15%

The Teachers stand out for using their T&L Centers most often, especially for learning science (53%) and curriculum design (41%). The Executors lead in terms of membership in professional societies (79%), as well as their rate of attendance at professional society meetings and campus workshops related to teaching (35% and 31%, respectively). The Teachers are close behind on attendance metrics (33% and 26%, respectively), but the remaining four segments fall farther back.

Segments Bases Predict Behavior

Our segmentation, based primarily on orientation to students, institutional factors, and personal networks and connections is predictive of the adoption of emerging teaching techniques.

However, it is not just the segment itself which predicts adoption. Some techniques are more likely to be affected by different micro-factors. With respect to 4-year institutions, for example, most techniques other than use of free courseware are more likely when the instructor has a very active focus on student learning (single checkmarks). However, actively seeking or sharing new ideas about student learning, such as networks with other faculty, is an even stronger predictor of adoption (double check marks). Additionally, instructors who are dynamically involved in course design, as opposed to taking an existing course off- the-shelf, are much more likely to use paid courseware and, interestingly, standardized assessment tools. In contrast, many other factors do not play a role. For example, course level and institution type are not strong predictors of instructors using a new technique. While we show results for 4-year, 2-year faculty exhibit similar behavior.

4-Year: Relative Impact of Instructor Attributes and Demographics on Adoption of Techniques

	Attribute or Demographic	Adopted at Least One Technique	"Flipped" Classroom	Free Courseware	Paid Courseware	Standard-ized Tests
Instructor Attributes	Focused on Instruction and Student Learning	✓	✓	-	✓	✓
	Institution is a Leader in Focusing on Instruction and Student Learning	-	-	-	✓	-
	Actively Seeks or Shares Ideas on Instruction and Student Learning	✓✓	✓✓	✓✓	✓	✓✓
Course & Role Demographics	Discipline	✓	✓	✓	✓✓	✓
	Course Level	-	-	-	-	-
	Instructor Involvement in Materials Selection	✓✓	-	-	✓✓	✓✓
Instructor Demographics	Institution Type	-	-	-	-	-
	Instructor Experience	-	-	-	-	-
	Participation in Society Meetings	-	-	-	-	-

✓✓ Significant at α = 0.10 and Most Impactful

✓ Significant at α = 0.10 and Least Impactful

- Not Significant at α = 0.10

Summary based on LOGIT regression model with adoption of techniques as dependent variable(s).

Supporting Faculty

Supporting Faculty

We saw earlier that faculty overall were highly student focused. Yet, adoption of practices which may improve student outcomes is uneven. There are numerous ways in which faculty may be supported in their adoption of practices to benefit student outcomes. Objectives include connecting with and promoting the needs of current adopters, expediting the next wave of adopters, empowering those who feel unsupported, and even managing those slowest to adopt. Opportunities will vary depending on the distinct needs of each segment, even among those amenable to change.

Several approaches can encourage further adoption of student-beneficial practices, namely: linking like-minded faculty, emphasizing best practices and techniques where faculty members have organically innovated, and providing an evidence base for student outcomes. A wide range of actors – from institutions to disciplinary associations to governing bodies – who have an interest in promoting student success through the practices of the faculty, can direct their efforts systematically to address an otherwise disparate professoriate.

High Level Opportunities

Goal	Key Groups	Addressable Needs	Short- or Long-Term Opportunities
Connect with and Support Adopters **"Teachers"**	• Represents 24% of all faculty • 56% of The Teachers and The Executors who have adopted at least one leading edge technique • 11% of all faculty are in Business, Health, and other Pre-professional disciplines and in The Teachers or The Executors	• Networking • Sharing best practices • Building cases and proof points, documenting benefits • Building re-usable templates, approaches	• **Connect** with current and potential adopters at select disciplinary meetings • **Document** benefits to aid further adoption • **Build** cases and means to bridge high adoption discipline experience to other disciplines
Facilitate the Latent "Next Wave" **"Executors"**	• 19% of all faculty • 44% of The Teachers and The Executors who have yet to use key techniques	• Main differentiator of current adopters vs non-adopters is networks, sense of proven benefits, how-to-knowledge	• **Support building** of cross-in-stitution sharing networks, dissemination of proof points and how-to • **Enable self-identification** and opt-in of less connect-ed to support network and resources
Enable the Unsupported **"The Willing"**	• Majority of The Willing • 12% of all faculty	• Overly part-time, pressed to connect, pressed for time, resources, knowledge	• **Support building** of cross-in-stitution sharing networks, focus on how-to • **Enable self-identification** and opt-in of less connect-ed to support network and resources
Manage Slow Adopters **"Principled Opponents"** and **"Research Minded"**	• 46% of all faculty • Majority of The Re-search-Minded, The Discon-nected Skeptics, and The Principled Opponents	• Vetted approaches which balance pedagogical best practice, proven benefits implementation, and ability to personalize by faculty	• **Leverage disciplinary and research passion** via meth-ods and courseware from leading institutions, societies, and related organizations

Methodology Brief

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Sampling Methodology

The survey, sponsored by the Gates Foundation, was conducted online by Ipsos between October 6 and November 3, 2014 in English. This was a stratified probability sample, using the 1.2 mm member MDR database of postsecondary faculty in the United States as a sample frame. Faculty were limited to those at institutions offering 2- or 4-year degree programs. Strata were defined based on institution type, discipline and geographic region, with n-th item probability sampling in strata. Results were weighted back to the overall universe. The survey itself was designed by FTI Consulting.

A total of 3,971 questionnaires were completed. Data were collected by Ipsos and analyzed by FTI Consulting. Results shown, unless noted, are weighted to reflect the US faculty population as estimated by FTI Consulting, based on data from the US department of education IPEDS and related sources. We included weight variables that balanced the sample on Full Time/Part Time and Tenured/Non Tenured within each Institution type:

- Publicly funded, doctoral-granting institution
- Private, non-profit, doctoral-granting institution
- Publicly funded, primarily non-doctoral institution
- Private, non-profit, primarily non-doctoral institution
- For-profit institution offering 4-year baccalaureate degree program

Undergraduate faculty numbers were based on total current faculty adjusted by 2004 NCES IPEDS portion of faculty by institution type reporting at least one undergraduate course. Column percentages in some cases use earlier-year data and other estimates. Disciplines were based on NPFS 2004 fields, recoded, whole faculty basis.

The margins of sampling error were not adjusted for the design effect due to weighting.

Unless otherwise specified, reported data are pooled across all 2-year and 4-year institutions and PT/FT faculty.

Certain questions were asked in the frame of a specific course level in which faculty member teaches; in those cases, results are based on a sub-set of the total. Please see questionnaire for full details.

Table: Summary Scorecard Metrics

Table of Summary Scorecard Metrics was created by grouping variables into categories and taking the average Top Box score. Please see below for the full list of variables and corresponding categories. Unless otherwise specified, analysis represents Top Box scores.

Disposition: Attitudes toward system: personalization, flexibility
- The foremost objective of institutions like mine should be to help students learn (Q2_3)
- It is critical for faculty to find ways to adapt to the needs and expectations of today's students (Q2_9)
- The system needs to provide a more personalized approach to teaching and adapt to each student's needs and situation (Q2_12)
- The system needs to be more flexible, adapting to each student's needs and situation (Q2_13)

Disposition: Understanding of student and needs, pedagogy, goals
- I personally understand my students' goals for their education (Q2_7)
- I was well prepared and trained in teaching when I began my teaching career (Q2_10)
- I have a good understanding of teaching, pedagogy and students' learning needs' (Q2_11)

Interact & Connect: Current time and contact with students
- I personally spend a greater amount of time and effort on teaching than other faculty (Q2_8)
- (Students...) At least once during a course, talk about career plans with you (Q13_2)
- (Students...) Seek your assistance and help with specific assignments or challenging topics (Q13_4)
- (Students...) Discuss personal or other non-academic matters with you which affect the student's ability to persist in achieving their academic goals (Q13_A)

Interact & Connect: Desire more time and contact with students
- (Students...) At least once during a course, talk about career plans with you – WANT MORE (Q13_A2)
- (Students...) Seek your assistance and help with specific assignments or challenging topics – WANT MORE (Q13_A4)
- (Students...) Discuss personal or other non-academic matters with you which affect the student's ability to persist in achieving their academic goals – WANT MORE (Q13_A6)

Methodology Brief

Institution: Rewards
- Faculty here are adequately rewarded for being good teachers (Q15_1)
- I would be rewarded for increasing students' passing rates in my courses (Q15_3)
- I would be rewarded for increasing students' learning in my courses (Q15_4)
- I would be rewarded for developing new instructional methods designed to improve students' learning (Q15_5)
-
- Institution: Time and Resources
- I have the time and resources to develop incremental improvements to my courses when I see potential benefits (Q15_7)
- I have the time and resources to develop major changes to my courses when I see potential student benefits (Q15_8)

Institution: Leaders
- The institution's leaders have been effective in guiding and supporting changes in instruction (Q15_11)
- Guiding and supporting changes in instruction which benefit students is a major activity of our faculty Senate (Q15_12)

Discipline
- Leaders in my disciplinary associations provide strong guidance on teaching practices (Q15_16)
- Many of the newer instructional practices and methods will not apply well within my discipline (REVERSE CODED) (Q15_17)
- This approach fits well with my discipline (Q7_12)
- National or regional discipline meetings in top 3 sources (Q19_3)

Networks & Connection: Seek out campus and department suggestions on teaching
- I frequently seek others' suggestions with respect to instruction and students' learning (Q16_4)
- I have frequently made a point of seeking out others in my department to share teaching practices I thought they would find useful (Q16_7)

Networks & Connection: Frequent participation in campus and disciplinary association workshops
- Participated in committees or Special Interest Groups on campus related to teaching >2 times (Q18_4)
- Attended sessions or workshops focused on teaching, held in association with a professional society >2 times (Q18_1)
- Attended on-campus and association workshops, both >2x (Q18_1 and _4)

Delivery Model: Primarily use Online or Hybrid
- Hybrid greater than 50% (S9_4-5)
- Online greater than 50% (S9A_4-5)

Delivery Model: Plans to substantially increase online, hybrid, technology
- Substantially increase teaching of FULLY ONLINE (Q2A1)
- Substantially increase teaching of HYBRID (Q2A2)
- Substantially increase use of in-class instructional technology (Q2A3)

Delivery Model: Online will offer personal and student benefits
- Online will improve the ability of my students to digest content and learn (Q3_1)
- Online will offer significant opportunities and benefits for my career (Q3_2)
- Online will enable me to more effectively engage students (Q3_3)

Delivery Model: Feel prepared to teach online
- I feel adequately prepared to effectively teach students in online classes (Q3_4)
- I feel adequately prepared to manage online class technology (Q3_5)
- I feel adequately prepared to design online courses (Q3_6)

For more information about the study, please contact FTI Consulting's Strategy Consulting & Research Practice

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