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National surveys on entering freshmen have not addressed issues important to urban and metropolitan universities. This article describes the development of a survey designed to examine specific characteristics of our institutions' student populations. The survey may fill a gap by gathering data before students are exposed to the university curriculum and thus establishing a baseline against which changes that may occur during the course of undergraduate study may be measured.

An Entering Student Survey for Urban Institutions

Urban universities have struggled to define their uniqueness within higher education. They have been at the forefront of efforts to address the needs of the "New Majority" (Elliot, 1994), those students who may be more diverse, older, and who tend to be employed more than traditional college-aged students in the U.S. To better serve this changing student demographic, many urban universities have initiated reform of undergraduate education at their institutions.

Mutual interests brought three urban universities together in a collaborative project entitled "Restructuring for Urban Student Success" (RUSS), funded by the Pew Charitable Trusts. The institutions are Indiana University Purdue University Indianapolis (IUPUI), Temple University (TU), and Portland State University (PSU). The RUSS project has two main components, the first being the creation of a survey to collect information on urban students and their characteristics. The second component is a series of institutional site visits to assess the progress of educational reform on each campus. This article will focus only on the first component, the development of a survey for urban university students.

Initial Phase

The grant proposal initially called for modification of one of the national surveys of entering students to more closely reflect the characteristics of urban universities. After weighing the possibilities, however, the RUSS group decided to explore development of a new instrument, tailored to their specific needs. RUSS project leaders asked PSU to take the lead, and, in the fall of

1997 a team of faculty from the departments of psychology, sociology, institutional research, and student affairs began developing survey items more appropriate to urban university students, organized under three categories: demographics, expectations, and attitudes.

As part of this initial phase, the team examined several existing student surveys, including the College Student Experience Questionnaire (CSEQ; Indiana University, Center for Postsecondary Research and Planning), the Cooperative Institutional Research Program (CIRP; UCLA, Higher Education Research Institute) and the University of Colorado–Boulder Freshmen Survey. The team determined that, generally, these surveys are geared toward assessing the attitudes and expectations of traditional residential college students (ages 18-22) and do not address the multifaceted commitments of urban students that may be external to academic life. Moreover, the expectations and attitudes of urban students, who are often first-generation college students, are not fully explored in previous surveys.

Urban Students

In order to develop survey questions that would reflect the multifaceted aspects of urban students' lives, the faculty group drew on several bodies of literature. Much of the research on urban students describes them as older, working, part-time students who may not be invested in their institutions (Seaberry and Davis, 1997). To explore the accuracy of this description, the faculty group focused on survey items that could assess the degree to which these characteristics were true of urban freshman students at the RUSS institutions. For example, an item previously used at IUPUI was incorporated into the survey: "Do you consider yourself a student who is a worker, or a worker who is a student?"

Educational Attainment

The literature on educational attainment suggests that students who attend urban public four-year institutions are less likely to complete their degrees than students at more traditional colleges (Astin, 1993). The noncognitive variables considered to be important were intentions and aspirations towards higher education, the "fit" between a student and an institution, social adjustment, finances, availability and quality of student services, and classroom issues.

Aspirations and intentions of students are important to consider when looking at educational attainment. Pascarella and Terenzini (1991) associate aspiration for higher education with social mobility, and illustrate this connection by pointing out the positive net effect college quality has on educational attainment. The contextual basis for this assertion is that "interactions with peers who themselves have high educational aspirations" (p. 376) has a positive affect on the educational attainment of students. Most urban universities are not considered to be highly selective, and the high percentage of first-generation students (Smith, Guald, Tubbs, and Correnti, 1997) at many urban institutions may influence the context associated with educational aspirations.

Also, the act of transferring has been shown to have a negative effect of educational attainment (Pascarella and Terenzini, 1991). Many urban institutions have a

large percentage of transfer students (Smith et al., 1997), so it was important to consider both intentions and previous educational experience in development of the RUSS survey. In order to include these variables, the faculty group created items that would capture student intentions (e.g., obtain a degree, transfer to another institution, explore careers), educational goals (bachelor's degree, graduate or professional degree), and the level of importance urban students place on attaining these goals.

The initial fit between the college environment and the student is considered to be an important factor in retaining students (Pascarella and Terenzini, 1991). Others have also asserted that students' commitment or attachment to the institution affects retention (Tinto, 1987). These issues are associated with the social adjustment of students to their institutions, and are difficult variables to capture in a pencil and paper survey. For this reason, the faculty team developed survey items focused on students' expectations of the college environment and the geographic setting in which the students resided before enrolling in college. The team also included questions that would reflect why students chose to attend a particular institution.

Student Services

The faculty team then created a series of items designed to explore whether or not student services had the same level of importance for urban students as for traditional students (Astin, 1993). These questions revolve around traditional services, such as advising and housing, and more nontraditional services, such as childcare. In order to assess level of importance, the questions used a dual-response format, which measured both the level of importance and likelihood of using the services.

Studies on Urban Universities

As Grobman (1988, p. 4) wrote, the urban university "...is not merely located in a city; it is also of the city, with an obligation to serve the needs of the city's diverse citizenry." The term "urban university," however, is used to describe a range of institutions. Despite this diversity, it is the urban mission of these institutions that sets them apart from traditional colleges and universities (Van Fleet, 1987, as cited in Grobman, 1988).

Gordon Elliot characterized today's university students as the "New Majority," and states that many "...are located, if not in the heart of the city, then on its periphery" (1994; p. XII). In much of the literature, the term "urban student" includes students who reside in an urban location and attend college there, and those who attend an urban institution, but come to the city from suburban or rural locations. Compared to traditional college students, urban students are thought to have distinct characteristics. They are assumed to be older; part-time students who stop in and out frequently throughout their college careers; more likely to be employed either full or part-time; predominantly first-generation college students; occupationally oriented; and poorly prepared academically (Barnett and Phares, 1990; Dietz and Triponey, 1997; Rhoads and Lamar, 1990; Shuh, Andreas, and Strange, 1991). In order to assess these assumptions, the team created items focused on the need to work, intentions for keeping a present job, and number of hours a student would need to work while enrolled in college.

Training Literature from Industrial Psychology

Literature in the field of Industrial/Organizational (I/O) psychology, specifically that concerning employee training and learning, suggests several factors that affect learning and performance outcomes. Learner general self-efficacy (GSE) and motivation are two factors that have been identified as affecting learning from training and training outcomes. GSE refers to one's belief in his or her competence across a variety of situations (Eden & Avriam, 1993). Motivation refers to the arousal, maintenance, direction, and magnitude of effort (Katzell & Thompson, 1991). Several studies have established positive relationships between learner GSE, motivation to learn, and subsequent learning outcomes, such as performance on learning measures (Baldwin, Magjuka, and Loher, 1991; Smith-Jentsch, Jentsch, Payne, and Salas, 1996), socialization into the new work environment (Saks, 1995), job search activity and employment (Eden & Aviram, 1993), attitudes toward training, future job performance, and the extent to which training programs meet the expectations of the learner (Tannenbaum, Mathiew, Salas, and Cannon-Bowers, 1991).

Translating the findings from the I/O psychology literature into the academic context, survey items were written to measure entering students' attributes of past performance, general self-efficacy, specific academic self-efficacy, motivation to do well in college, perceived need for education, and the importance of choice (i.e., the ability to choose classes) in academic training. It was hypothesized that these constructs would be positively related to student-learning outcomes such as grade-point average, decisions to remain in college, met expectations regarding their education, motivation, and self-efficacy after the first year of college.

Item Review Process

The initial item creation phase generated 271 individual items. The next phases of the survey development process were determination of item clarity, validation of content areas, and external review.

Item Clarity

In order to determine if the items were appropriate the faculty working group determined that each item had to be reviewed for each of the following criteria: 1) Is the item asking one question? 2) Is the item biased? 3) Is the item appropriate for an urban institution? 4) Does this item measure something useful? and 5) Is the time worded in neutral terms, so that it is not a leading question? Each member of the team accepted responsibility for one criterion and read each item with that particular issue in mind. This process prompted some rewriting of items, but none were deleted at this point.

Focus Groups

In order to determine if all important areas of concern were covered in the survey, focus groups were conducted with various constituents and were completed in March of 1998. The focus group protocol focused on questions that would elicit information on the following issues: expectations of college life; factors critical to student success or failure; concerns or anxieties about entering college; information that faculty should

know about entering students prior to their arriving on campus; what students want to get out of attending college; and what kinds of resources students expect to be provided by the university.

The following themes were found for each group:

Faculty observations about freshmen/transfer students:
- Some students seem to be distracted by extracurricular issues.
- Many students do not seem to be well-prepared for college, academically or personally.
- Some students have limited life experiences that hinder them from seeing all options afforded them in college.
- Some students become overwhelmed by the unknown and fall into a destructive cycle that prevents them from succeeding.

High school seniors' expectations for college:
- It's good to be on your own in college and have independence, but it may be lonely; you need self-discipline.
- Students look forward to learning new and *interesting* things in classes.
- It may be hard to manage and balance the large amount of work (e.g., reading) that is involved in college.
- They look forward to meeting new people.
- It may be hard not to be distracted by outside interests.

Concerns of students enrolled in Freshman Inquiry:
- Time management
- Finances
- Meeting new friends
- Approachability of instructors
- Acquiring skills and academic ability

Observations of mentors (upperclass and graduate students) who assist in teaching Inquiry:
- Several factors are critical to student success, such as intentions and support.
- Other factors related to failure include lack of connection to the campus, working, and motivation to stay in school.
- Some students do not seem to have enough writing instruction, which affects their academic performance.
- Some students have difficulties with the transition from the environment in high school to that in college. In high school, students can get by as passive learners and the instructor may be more like a friend. In college, the student is expected to be an active learner and close relationships with faculty are harder to develop.

In April 1998, the PSU committee met as a group to discuss and modify the survey items. Items were dropped or modified if the committee agreed that they did not meet

each of the five criteria outlined previously. They also reviewed items according to the extent to which they addressed the themes identified in the focus groups. Items were added, dropped, or modified to ensure that important information from the focus groups was incorporated into the survey. A total of 133 items resulted from this review by the PSU committee.

External Review of Items

External review of the survey was accomplished in two ways. First, an external expert was asked to review the items from the first draft and provide feedback to the group. The second method was to have all participating institutions meet at PSU in May 1998 to discuss the first draft of the survey. Then the survey was compared to freshman surveys used by Temple and IUPUI to identify core items that were of interest to each institution in achieving the specific objectives of the RUSS initiative, specifically, characterizing and enhancing current knowledge of the urban student. The result of this process was 184 items that comprised the pilot draft of the survey.

Pilot Testing

The pilot version of the survey was administered to high school students to allow the PSU working group to determine time needed to complete the survey and ask if any items were unclear. From this pilot testing, small adjustments were made to the items and an administration time of 30 minutes was fixed.

The survey was then administered to students at the three participating urban universities. At PSU it was completed during summer orientation for freshmen, who were asked to complete it during a large group session, and all the data gathered was completed prior to the beginning of the fall term. Although 826 surveys were collected, matching demographic information to the survey resulted in 672 usable surveys. First-year students at Temple were asked to complete the survey after classes began, and resulted in a total of 390 surveys. Temple was also able to repair identification numbers and provide demographic information for all 390 surveys. First-year students from IUPUI were mailed surveys and asked to complete and return them by mail, for which they were paid $10. Of 500 surveys mailed, 213 were returned, and matching demographic information to the surveys resulted in a total of 195 respondents.

Comparison Group

PSU invited Southern Oregon University (SOU), one of Oregon's regional universities, to serve as a pilot comparison group for the study. SOU is located in Ashland, Oregon, a city with a population of approximately 16,000 within the state's smallest metropolitan statistical area (total population approximately 169,000). It attracts students primarily from surrounding small towns and rural areas, and it was expected that responses to many of the survey questions would differ from those given by students at the larger urban universities. The survey was administered on the first day of classes in the freshman seminar, a learning community model similar to PSU's Freshman Inquiry. SOU conducted a posttest in the spring of 1999.

Institutional Case Studies

Each of the participating institutions is making use of the survey results in a somewhat different way, again reflecting the differences in institutional and political cultures on each campus.

Temple University

Of the 390 surveys administered to Temple's new first-time degree-seeking freshmen, the characteristics of the selected sample reflected the characteristics of Temple's first-time freshman class. The pilot sample tended to reflect a group of students who may be described as nontraditional in terms of variables such as parental income, first-generation college status, ethnic mix, and working requirements but could be generally described as "traditional" with respect to variables such as age, living on campus, and family responsibility.

Item responses for each question were tabulated. In addition, because first semester grade point average is often taken as the predominant measure of first semester success, relationships among items and first semester GPA were computed for each response to each question. The results of the analysis indicated that there were significant relationships among items or sets of items on the questionnaire and students' first semester grade point average.

Preliminary factor analysis of the items confirmed that many of the structural relationships implied by the organization of the items actually matched the patterns of relationships found among item responses.

Indiana University Purdue University Indianapolis

Comparison of responses to items on the RUSS survey with our prior-year survey administration revealed no significant differences, suggesting that the responses were representative of the entire entering cohort.

Efforts at IUPUI to improve the early stages of the undergraduate experience were coalesced with the formation in 1998 of a new academic school called University College (UC). Led by an academic dean and senior faculty from around campus dedicated to teaching, UC engages a broad range of campus faculty in the development, implementation, evaluation, and improvement of curriculum and support programs for students in their first year or two of university studies. Thus the further evolution of our entering student survey is a crucial element of a broader assessment framework geared to our unique environment and program mix.

The staffs of the Office of Information Management and Institutional Research (IMIR) and UC are now collaborating on an effort to clarify the purposes and uses of the entering student survey. The next step in this internal analysis is to link these pragmatic issues with relevant literature to help guide the development of key measurement concepts. For example, some of these items speak to such general concepts as coping skills and help-seeking behaviors. That is, while recognizing the pragmatic uses for this information, the broader conceptual context is critical to gaining a deeper understanding of student behavior and program effectiveness.

Portland State University

Portland State University administered the RUSS survey during Freshman Orientation in summer 1998. In addition, 89 surveys were administered after classes began to students enrolled in Transfer Transition, the entry-level general education course required for students who transfer to PSU during their sophomore year. PSU was interested in discovering whether or not there were any response differences among freshmen new from high school and students with prior postsecondary experience, the majority of whom enter the institution as transfers in the sophomore or junior year.

In addition to the RUSS survey, PSU's Entering Student Survey is administered to all students who are newly admitted to PSU. Since 1991, the survey has been administered every two years during winter term, and captures information on intentions, plans, satisfaction, and demographic characteristics of new transfer students at all levels and freshmen new from high school. The survey is intended to capture information about these students after they have experienced a full term at the university. It is linked to longitudinal research under way in Office of Institutional Research and Planning (OIRP) to track students across their years of study at PSU and one to five years after graduation.

The RUSS and ESS surveys share several questions in common. PSU plans to spend the next year evaluating its schedule of student surveys, and is exploring alternate years for administration of the two surveys. One idea is to modify the ESS to include several core items from RUSS that could be answered easily by transfer students as well as by new freshmen. OIRP is also exploring the development of Web-based versions of its surveys as a way to cut costs and improve response rates.

Findings

While each campus conducted an analysis of its own data, the findings reported here are for the aggregate of the three institutions. Results, in general, tended to confirm the RUSS group's expectations. Freshmen reported that they planned to work at least half-time while enrolled in college, that they would commute to campus while living with parents or other relatives, and that more than half were first-generation college students. Their expectations for college, however, were not noticeably different from freshmen in any other context: they expected to find a traditional classroom environment, with lectures, discussions, and required papers, and tended to underestimate how much time they would need to study for classes. PSU also found that there were few significant differences between the responses given by the freshmen and the sophomore transfer students who completed the survey. While sophomores had a more realistic idea of the college classroom, their demographic profile was similar to that of the freshmen.

In general, the demographic profiles of the freshmen classes at the combined institutions and SOU are similar. But more SOU freshmen indicated that they did not plan to work during the school year, and more at the combined institutions had applied for admission to other schools in addition to the one that they chose to attend. Not surprisingly, SOU freshmen were less likely to do volunteer work in the community while enrolled in college or to commute to campus either by car or public transit and were

more likely to live in campus housing and walk to class. On the survey questions dealing with student expectations for college, there were a few significant differences between SOU freshmen and the combined urban group. In general, SOU students were more likely to expect that they would participate in traditional college activities, such as clubs and sporting events, and to make friends while in college.

Future Plans

During the spring of 1999, Portland State University administered a posttest of the survey. By using a combination of data reduction techniques, such as factor analysis and pre–post comparisons, the participating institutions will focus on which core items are best for assessing key characteristics of urban university freshmen. Beyond meeting the requirements of the grant project, the institutions plan to continue their research on urban universities and their students, and to link with other activities under way nationally to develop a common database for research on urban institutions and students. Findings from the posttests at PSU and SOU will contribute to refinement of the instrument, and may lead to further data collection activities. Results of the RUSS group's research will provide evidence to support or refute commonly held notions about urban universities and students, assist urban institutions in planning and decision-making, and contribute to the body of literature on this distinct segment of higher education. Dissemination of the results will be through a Web site, national presentations and publications, and internal reports and research briefs on each of the participant campuses.

Suggested Readings

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Related projects and their associated web sites include:

The Urban University Portfolio Project <http://www.imir.iupui.edu/portfolio>

The Urban University Statistical Portrait Project <http://www.imir.iupui.edu/urban>