ED 330 384   JC 910 167

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TITLE	A Cluster Analysis of the 1985-1989 Non-Credit Student Body: Implementing Geo-Demographic Marketing at P.G.C.C., Part II. Market Analysis MA91-5.
INSTITUTION	Prince George's Community Coll., Largo, MD. Office of Institutional Research and Analysis.
PUB DATE	Feb 91
NOTE	29p.; For a similar analysis of credit students, see JC 910 166, and for a more detailed description of the geo-demographic cluster analytic system employed in this study, see ED 325 182 and JC 910 168.
PUB TYPE	Reports - Research/Technical (143) -- Statistical Data (110)

| EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*Cluster Analysis; Community Colleges; Continuing Education; *Course Selection (Students); Institutio.'al Research; *Marketing; Models; *Noncredit Courses; Population Distribution; Residential Patterns; Socioeconomic Influences; *Socioeconomic Status; Student Interests; Student Recruitment; Two Year Colleges; *Two Year College Students
IDENTIFIERS	Prince Georges Community College MD

ABSTRACT

        In an effort to better market the college's programs and services, Prince George's Community College (PGCC), Maryland, has employed its own tracking system which utilizes a socioeconomic segmentation of their serviceable target population. This approach utilizes U.S. Census data grouping neighborhoods into natural socioeconomic, cultural, and lifestyle "clusters" for which special marketing strategies can be developed. In 1990, a geo-demographic cluster analysis was conducted of county reside~.t students who attempted at least one non-credit course at PGCC during the 5-year period from 1990. Twenty-three socioeconomic classifications were developed for the 36,725 students (56% of the original pool) analyzed. The 23 clusters were subsequently collapsed into 8 larger groups referred to as "super-clusters." To better assess which students were attracted to which types of courses, the 2,000 non-credit courses offered during the period under study were classified by subject matter interest area, and grouped into seven "product themes" (PT's). Study results revealed the following: (1) the upper middle-class, proiessional cluster showed preference for lifestyle and entrepreneurial PT's; (2) the wealthy, hyper-educated cluster was drawn toward the creative and high-tech PT's; (3) the lower middle-class, inner-suburban cluster showed preference for trades and crafts courses, with a small interest in career exploration PT's; and (4) the largely black, inner-suburban, and near-to-middle class cluster tended to prefer entrepreneurial, high-tech, and home and office PT's. Data tables are appended. (GFW)

IMPLEMENTING GEO-DEMOGRAPHIC MARKETING AT P.G.C.C.

Part II

A Cluster Analysis of the
1985 - 1989 Noncredit Student Body
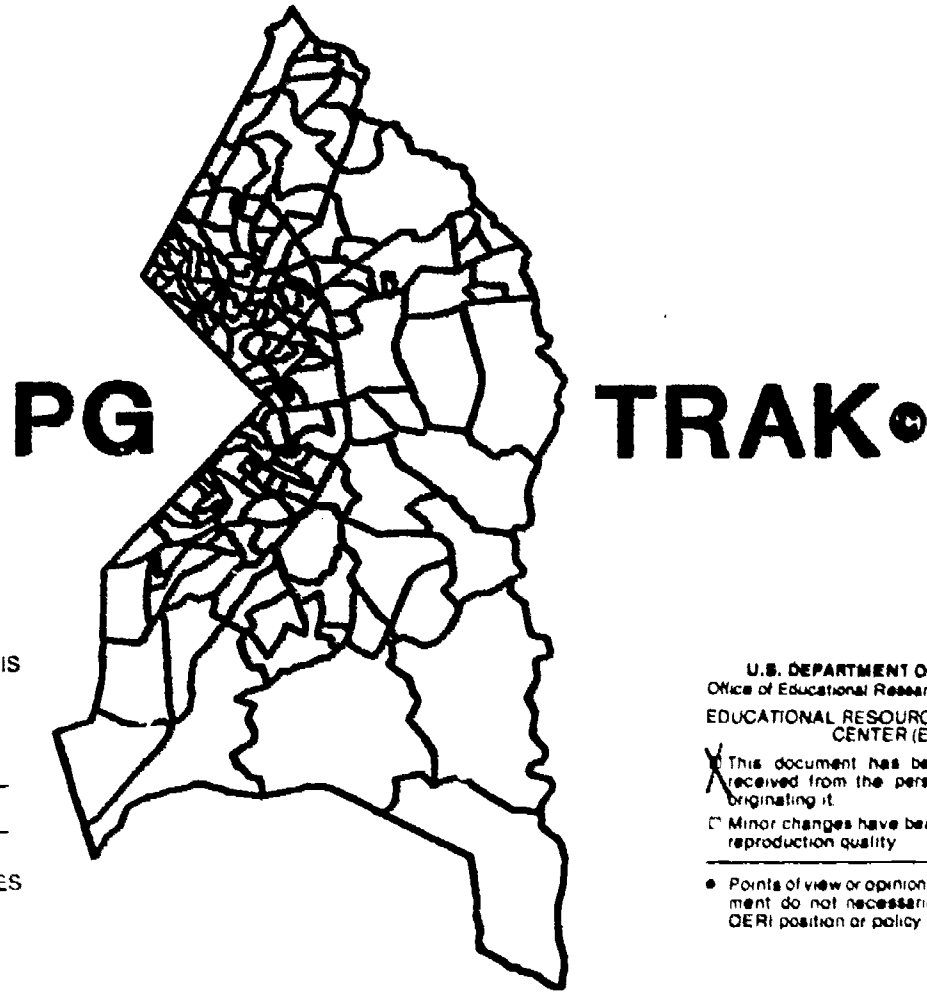
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IMPLEMENTING GEO-DEMOGRAPHIC MARKETING Part II --
A CLUSTER ANALYSIS OF THE 1985-89 NON-CREDIT STUDENT BODY
Market Analysis MA91-5
February 1991

Introduction

In Market Analysis MA91-4, the Office of Institutional Research and Analysis presented a detailed life-style cluster breakdown of a representative roster of recent P.G.C.C. credit students: an unduplicated list of all county residents enrolled in at least one FY 1986-1990 credit-earning course whose addresses could be "geo-coded" -- i.e., placed in a U.S. Census block. In this report, we will carry out a similar analysis of a comparable non-credit sample of our total student body, as before emphasizing the marketing implications of resulting cluster distribution patterns. The main difference in this study, besides the identity of the target group, is the market focus upon "areas of interest" as opposed to varieties of academic status and outcome, made necessary, as will be explained, by the intrinsically informal character of "continuing education."

Special Sample Considerations

The total number of FY 1986-1990 County residents enrolled in at least one P.G.C.C. non-credit course came to 61,518. Of these, 49,511 lived at addresses which could be Census geo-coded -- about 82 percent, an acceptable proportion by the conventions of geo-demographic analysis and indicative of adequate representativeness. This group formed the basis of our study sample; further refinement, however, would be required.

Up to this point, our method of non-credit sample derivation parallelled that used in the credit student study. But here the peculiarities of non-credit study, compared with credit study, kick in. The problem is this: Mass marketing, even of the cluster targeted kind, by its nature must concern itself only with a product of mass availability and with those potential consumers who may freely elect to purchase that product. All P.G.C.C. credit courses are available to any member of the larger community who has the bare minimum of a high school diploma or its equivalent and all credit classes are filled by self-selecting. But courses not restricted to special populations taken by self-selecting students -- "open enrollment" -- is only one of many P.G.C.C. non-credit possibilities.

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Many come to P.G.C.C.'s non-credit classes at the behest of employers (specially contracted job training), or to meet mandated professional credentials requirements (real estate license renewal), or to take part in closed-enrollment courses aimed at a specific group (seniors-only courses). In fact, some are not college students even in the most extended sense of the term: P.G.C.C. includes minors signed up by parents for various college-sponsored youth programs (e.g., the Child Development Clinic) in the "non-credit enrollment" category for record-keeping purposes.

Given the mass marketing focus of this study, clearly a procedure had to be worked out and implemented to exclude such closed enrollment and special population students from the non-credit file. The main difficulty in establishing an effective procedure turned out to be the discovery of a significant number of "overlappers": many non-credit students participated in both open enrollment and closed enrollment courses (i.e., senior citizens taking restricted "900" classes but also standard "enrichment" courses) or who in addition to "other-directed" course taking (i.e., employer contracted job training) also signed up for open enrollment courses out of personal motives. The decision was made to include these "overlap" students in the open enrollment group on the grounds that .t was their open enrollment behavior after all that mattered and should count for classification purposes. To lose them would be to distort the representativeness of the open enrollment file. Therefore, only those who participated exclusively in closed enrollment and/or special population courses were to be dropped from sample consideration -- for example, senior citizens who took nothing but 900-level courses or realtors all whose class time was spent in real estate courses.

The numerical effect of this filtering-out was the further reduction of the sample from 49,511 to 36,725, a drop of about 26 percent. Two meaningful things can be said about this statistic. First, unlike the initial 18 percent drop which occurred due to failure to geo-code, this drop does not call into question the representativeness of the remaining sample. If anything, the exclusion of these 12,786 non-credit students improves representativeness because this group should not be included by sample definition. The aim is the production of a pure open-enrollment data base; dropping this 26 percent non-open enrollment group accomplishes this. Second, the statistic is interesting in itself for it provides us for the first time with a sense of the true recent ratio of open- to non-open enrollment non-credit students: three-to-one.

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Special Course Data Considerations

The above discussion related only to non-credit student-sample criteria for inclusion. It remains to be considered how the study decided upon the shape and character of non-credit course data base. For beyond simply counting up and comparing the number of open enrollment continuing education students in each PG-TRAK (c) life-style cluster, the main analytic goal of this study was the identification of patterns of non-credit course-taking by cluster.

Our emphasis on course-taking patterns here diverges from that of the previous credit study which highlighted academic status and outcome variables. While course subject matter is not without its importance on the credit side (mostly in terms of "student major"), more important are considerations of student type (full-time/part-time, first-time/continuing, etc.), performance (graduate/non-graduate, good grades/poor grades, etc.), behavior (consecutive attenders/"stop-outs," high credit accumulators/low accumulators, etc.) and motivation (transfer-oriented/job-oriented, etc.). This is because, in a large majority of cases, interest in a subject matter is a secondary attendance reason compared with larger formal objectives such as transfer to a four-year school or professional advancement. Here one studies engineering, say, not so much for its own sake but to go on to some bachelor program or job which happens to involve engineering.

But on the open enrollment continuing education side, sheer subject matter interest comes to the fore. By definition (no academic credit) there can be no strictly academic ground for pursuing knowledge in a particular field, nor (once contract and credentials courses are eliminated) no clear, necessary connection between course material and occupational goals. (This is why, in fact, record keeping for non-credit students is far less formal and detailed. Concepts such as "first-time/new" and "part-time" are meaningless, there are no grades nor degrees, and the loose equivalent of credit unit -- CEUS -- relates incompletely to the full range of courses and is severely limited in extra-collegiate application. Even if we wished to track non-credit students by credit-like categories, the exercise would be mostly nonsensical and the data lacking.)

There were two course data decisions to be made: (1) Not all formally non-credit courses are appropriate to a study aiming at open enrollment marketing -- which ones should we count? (2) Given the literally thousands of non-credit courses offered at P.G.C.C. within the last five years, how might these be best organized into manageable analytic categories of student interest?

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Which Courses to Count. For purposes of our study, there were basically five varieties of non-credit course: standard open enrollment (level 300,400,800), outside contract (level 500), seniors-only (level 900), special populations (Child Development Clinic, etc.) and special occupational (i.e., real estate credential). Naturally, we would want to include all standard open enrollment courses in our data base. The real question was -- what about the others? Our solution, ultimately, was to exclude all other course types from the acceptable list.

We eliminated exclusive contract course-takers from our student sample because they were not free choice consumers, and similarly there seemed every reason to exclude non-option contract courses from the course data base. The one procedural wrinkle here, however, was that not all de facto contract courses during this period were also de jure contact courses (level 500). Consultation with continuing education administrators revealed that a handful of apparently standard open enrollment courses really fell under the contract heading. Because isolating these few would involve extreme programming difficulties, we decided to accept the small error created by continuing to mark them "open enrollment" (about 3 percent misclassification, according to the Continuing Education Office).

Seniors-only 900-level courses were dropped on the basis of the alternate elimination criterion -- restricted enrollment. We need only point out that in doing this, we did not also eliminate the senior citizen student who elected to take any non-900-level courses. Likewise, we jettisoned all special population and occupation courses, without, of course, removing from the student sample those who took any open enrollment course along with one of these closed enrollment courses. (The only thing we might add here is to remark on the somewhat anomalous position of real estate courses within our framework of analysis. The great majority of students taking them are actual brokers with license renewals at stake, which is why we classified these courses as "special occupational." They are not, however, formally closed in enrollment, and a few non-realtors do sign up for them. Our procedure simply discounts these not very numerous "free participants.")

Which "Interest" Categories to Use. P.G.C.C.'s Continuing Education division offered over 2,000 different non-credit courses in the years covered by our study period -- too many to track by cluster on an individual basis. How might we best organize this vast listing into small number of market-sensitive, data-manageable analytic categories?

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The principle of organization we decided upon was the one implicit in the nature of continuing education mass marketing -- subject matter interest area. This has long been implicitly recognized as the best approach by the producers of the College's thrice-annual continuing education bulletin. The bulletin has always displayed course opportunities by interest categories, and over the years its writers and editors have been altering and refining the initial scheme, taught by the experience of the document's performance, until today its placement of courses is probably about as true a reflection of how non-credit students view their own educational concerns as can be devised in this format. It seemed silly to attempt to concoct an area of interest scheme on our own when such an excellent one -- of proven effectiveness and established in current marketing procedures -- was already available.

Therefore, in consultation with the Continuing Education Office we decided to adopt the interest area organization found in the two latest Con-Ed bulletins with only limited changes. The alterations mostly involved straight-forward, minor elaboration of some of the larger existing headings; or the addition of a few supplemental categories suggested by an analysis of a set of earlier bulletins. The results were ten broad categories and 37 sub-categories. Following this, it was a relatively simple if tedious and time-consuming matter to place each actual course offering in it proper niche. (See Appendix Tables I and II for complete course-by-category coding, full descriptions of each heading, and whole student sample breakdown.)

The FY 1985-1990 Non-Credit Student Body by Cluster

What does our last five-years representative sample of "pure" non-credit open enrollment students look like through the PG-TRAK life-style cluster prism? (See The PG-TRAK Manual, MA91-3, for a complete description of County life-style clusters.) Table 1, page 6, shows the distribution of all 36,725 by cluster and also provides cluster-by-cluster penetration rate statistics. ("Penetration" is the marketing term for proportion of the total market actually converted into customers. The "Penetration Index" systematically compares penetration across sub-markets by indexing each rate to the mean rate; 100 indicates equality with the mean rate.)

The non-credit student cluster percentage pattern turns out to be quite close to that found in the earlier credit student case. (In fact, the percent cluster-by-cluster non-credit-to-credit r-square measure of closeness of association came to a very high .92 out of a possible high of 1.00.) This indicates very similar non-credit and credit student bodies, demographically and socio-economically. As in the credit case, the largest non-credit student body segments tend to be made up out of upscale, mostly

white clusters (e.g., Bright Beginnings 10.9 percent and Country Club 7.5 percent) ; smaller student clusters tend to be more working-class and often African-American in character (e.g., Blue Collar Blacks 4.2 percent and City Line 1.3 percent).

TABLE 1. Non-Credit Student Distribution and Non-Credit Penetration* by PG-TRAK Cluster**
(Standard Order)

PG-TRAK CLUSTER		NO. OF STUDNTS	% ALL STUDNTS	PENE-TRATN	PEN. INDEX
Country Club	(1)	2,765	7.5	7.7	145
Exurban Dream	(2)	2,607	7.1	8.3	156
Aging Affluence	(3)	1,167	3.2	6.3	119
Sophisticate Mix	(4)	103	.3	3.6	68
Beltway Havens	(5)	2,462	6.7	7.1	134
Rainbow Manors	(6)	2,023	5.5	7.3	138
Government Mix	(7)	253	.7	5.8	109
Bright Beginning	(8)	3,997	10.9	6.4	121
Homesteaders	(9)	3,075	8.4	6.6	124
New Collars	(10)	2,270	6.2	6.7	127
Srgng Minorities	(11)	1,090	3.0	5.5	105
Fort George	(12)	185	.5	1.9	36
Bohemian Mix	(14)	756	2.1	2.8	52
Levittown P.G.	(15)	1,850	5.0	5.3	100
Minority Rows	(16)	2,293	6.2	4.7	88
Emergng Minorit	(17)	1,499	4.1	4.3	80
Middle America	(18)	1,856	5.1	4.6	86
Old-Timers	(19)	1,909	5.2	5.0	93
Boom Town	(20)	502	1.4	3.4	64
Blu Colr Blacks	(21)	1,548	4.2	3.3	63
Downtown P.G.	(22)	1,541	4.2	2.9	54
Country Blues	(23)	307	.8	3.9	74
City Line	(24)	474	1.3	5.6	106
Institutions	(25)	178	.5	N/A	N/A
ALL STUDENTS	--	36,725	100.0	5.3	100

* Penetration = 100 x [no. of students/county pop.]
  (exact institutional population data not available);
  Index = 100 x (cluster rate/all student rate)
** Dormitories Plus (13) excluded (n=15)

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This situation is a bit surprising since one might reasonably have expected to find, given substantial credit/non-credit differences in educational "product" and student motivations, that the two broad divisions would have drawn more cluster-distinguishable student bodies. Likewise, the continuing education cluster penetration pattern resembles that for credit students -- cluster social status correlating quite obviously and positively with percent of cluster population induced to become students. But, while this general finding is true, the comparative details of non-credit and credit penetration rates often diverge interestingly.

TABLE 2. Clusters Rank-Ordered by ͏ ͏-Credit Penetration Index and the Ratio of Non-Credit:Credit Indices					
CLUSTER		NON-CREDIT PENETRTN INDEX	CLUSTER		NON-CREDIT: CREDIT IDX RATIO*
Exurban Dream	(2)	156	Sophisticate Mix	(4)	197
Country Club	(1)	145	Aging Affluence	(3)	183
Rainbow Manors	(6)	138	Old-Timers	(19)	149
Beltway Havens	(5)	134	City Line	(24)	136
New Collars	(10)	127	Boom Town	(20)	125
Homesteaders	(9)	124	Beltway Havens	(5)	120
Bright Beginning	(8)	121	New Collars	(10)	113
Aging Affluence	(3)	119	Minority Rows	(16)	111
Government Mix	(7)	109	Levittown P.G.	(15)	108
City Line	(24)	106	Bohemian Mix	(14)	105
Srgng Minorities	(11)	105	Country Club	(1)	102
Levittown P.G.	(15)	100	Bright Beginning	(8)	100
Old-Timers	(19)	93	Exurban Dream	(2)	95
Minority Rows	(16)	88	Middle America	(18)	93
Middle America	(18)	86	Emergng Minorit	(17)	91
Emergng Minorit	(17)	80	Government Mix	(7)	90
Country Blues	(23)	74	Homesteaders	(9)	89
Sophsticate Mix	(4)	68	Rainbow Manors	(6)	85
Boom Town	(20)	64	Srgng Minorities	(11)	85
Blu Colr Blacks	(21)	63	Blu Colr Blacks	(21)	80
Downtown P.G.	(22)	54	Downtown P.G.	(22)	79
Bohemian Mix	(14)	52	Country Blues	(23)	78
Fort George	(12)	36	Fort George	(12)	27
* Ratio = 100 x (Non-Credit Pen. Index/Credit Pen. Index)					

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Table 2, above, presents two sets of cluster rank-orderings.
The first column displays non-credit student clusters arranged by
indexed level of market penetration, high to low. Thus it shows
even more clearly than Table 1 current relative non-credit
marketing success by cluster: the top eight clusters in
proportionally sending non-credit students to P.G.C.C. are all
upscale ones.

But column B tends to tell a different marketing story. This
array of clusters is based on a one-to-one comparison of each
cluster's non-credit penetration index score versus its credit
index score. (Arithmetically, a 100 ratio score indicates
identical non-credit and credit penetration index scores; above 100
implies the proportion the non-credit index exceeds the credit
index; below 100 the proportion the former falls beneath the
latter.) The best way to put it is that a cluster's score on the
special ratio index answers the following question: Forgetting
about whether a cluster shows weak or strong non-credit or credit
penetration relative the others, on which side in an absolute sense
is P.G.C.C.'s marketing to that cluster more successful, and
proportionally by how much?

For example, the cluster Old-Timers ranks third on the ratio
index with a score of 149. In neither its non-credit index score
(93) nor its credit score (62) does Old-Timers show even an average
level of penetration; nevertheless, Old-Timer non-credit
penetration, however poor relative all other clusters, still is
almost half again as high as its level of credit penetration
(93/62). Thus, while the regular non-credit penetration index
measures past overall non-credit marketing outcomes, the ratio
index measures the degree of predisposition towards non-credit
study as opposed to credit study and so points to the direction
marketing should take rather than predicting its success. Given
Cluster 19's relative impenetrability as either kind of market, one
might write it off as an outreach target; however, if one were
determined to market Old-Timers despite this, its ratio index score
strongly advises non-credit rather than credit marketing.

And what a difference this distinction makes in cluster rank-
orderings. Table 2's second column shows that only three of the
top eight non-credit-oriented clusters can also be found among the
top eight in terms of non-credit penetrability. These non-credit
super-clusters are Aging Affluence, Beltway Havens and New Collars.
But four of the remaining five most non-credit oriented clusters
actually registered sub-par levels of non-credit penetrability
(including, of course, Old-Timers), while market success within the
last proved only mediocre.

There is also a certain "life-style" logic evident in cluster
placement along the continuum of non-credit orientation. Three of
the top eight clusters (Aging Affluence, Old-Timers and City Line)
contain disproportions of aging and elderly persons, a group famed

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for "recreational" study, while the number 1 non-credit oriented cluster proves to be Sophisticate Mix, an ultra-educated social segment which has little use for community college-level credit work but loves informally to indulge its continuing intense curiosity about the world. Then, among the bottom eight we find mainly work-oriented, lower-white collar and blue collar clusters like Homesteaders and Blue Collar Blacks which tend to look askance at the pure enrichment aspects of higher education, demanding instead practical occupational and academic advancement from the college experience.

There remains one final way to explore the general non-credit distribution across student clusters -- by number of individual course enrollments and associated statistics. In our above mentioned credit student report, we discussed applying commercial marketing theory to educational marketing and drew parallels between "customer" numbers and student numbers, "sales volume" and number of credit course enrollments, and "profitability" and number of FTEs. The logic is much the same on the non-credit side, with one modification. Non-credit "profitability," measured in FTE terms, is much more difficult to pin down with precision since non-credit FTE calculations are much less direct and more complicated compared with credit-based FTEs. Therefore we will not attempt in this report to present non-credit FTE distributions by cluster, but will instead restrict ourselves to the first two dimensions. We have already dealt with customer numbers; now, we will take up sales volume.

Over the five year period under consideration, the 36,725 non-credit students in our sample generated a total of 63,233 course enrollments, or an average of 1.72 classes per student. These enrollment statistics may strike some as surprisingly low, but we must remind ourselves of a methodological step already discussed: We chose not to count any enrollments in closed enrollment courses (special population courses, Child Development Clinic programs, 500-level specially contracted course and 900-level seniors-only courses) nor any courses directed at the real estate community because our prime aim was to produce marketing-relevant "pure" open enrollment readings. Had we not applied these strictures, the enrollment numbers and rate would have been much higher. For example, even keeping to our open-enrollment sample, including all possible non-credit courses would have inflated the course enrollment number to over 164,000 and increased the course/student rate to 4.48. Seniors-only courses alone led to over 90,000 enrollments.

Table 3 (page 10) shows how five-year open-enrollment non-credit course-taking among true open-enrollment non-credit students was distributed across student clusters. The table is cluster rank order organized according to courses/student rate, from highest to lowest.

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STUDENT CLUSTER		NO. OF STUDENTS	NO. OF COURSES	COUPSES/ STUDENT	C/S INDX
TABLE 3. Non-Credit Student Clusters by Course Enrollment Data (Course/Student Order)					
Government Mix	(7)	253	552	2.18	127
Exurban Dream	(2)	2,607	5,421	2.08	121
Rainbow Manors	(6)	2,023	4,196	2.07	121
Srgng Minorities	(11)	1,090	2,138	1.96	114
Country Blues	(23)	307	589	1.92	112
Levittown P.G.	(15)	1,850	3,484	1.88	109
Bright Beginning	(8)	3,997	7,509	1.88	109
Sophisticate Mix	(4)	103	193	1.87	109
Blu Colr Blacks	(21)	1,548	2,855	1.84	107
Middle America	(18)	1,856	3,354	1.81	105
Beltway Havens	(5)	2,462	4,407	1.79	104
Fort George	(12)	185	328	1.77	103
ALL STUDENTS	---	36,725	63,233	1.72	100
Country Club	(1)	2,765	4,715	1.71	99
New Collars	(10)	2,270	3,869	1.70	99
Downtown P.G.	(22)	1,541	2,489	1.62	94
Bohemian Mix	(14)	756	1,219	1.61	94
Emergng Minorit	(17)	1,499	2,268	1.51	88
Boom Town	(20)	502	749	1.49	87
Aging Affluence	(3)	1,167	1,729	1.48	86
Old-Timers	(19)	1,909	2,793	1.46	85
Homesteaders	(9)	3,075	4,465	1.45	84
City Line	(24)	474	662	1.40	81
Minority Rows	(16)	2,293	2,946	1.28	75

Perhaps the most interesting aspect of the course enrollment rate cluster pattern seen below is how little it compares to that of either sheer student cluster percentage (Table 1) or non-credit County cluster penetration level (Table 2). The Pearson r-square measures of association were .00 and .06, respectively.

In other words, cluster non-credit "sales volume" seems to be an independent marketing consideration. Populous non-credit student clusters turn out no more likely to contain repeat course-takers than do small ones; and county clusters highly responsive to P.G.C.C. non-credit educational opportunities can be counted on to send us multiple enrollees no more than less penetrated clusters.

Non-Credit "Product Markets"; Types of Courses

What is analogous to commercial product in the world of higher education? The answer, of course, is course class. A university or college in marketing terms is quite like a company which has developed a wide-ranging product line. The main reason it offers such a variety of products is non-commercial; it could not fulfill its basic educational mission without covering a substantial expanse of human learning in its course "catalog." However, whenever it can do so without compromising its mission, the wise institution of higher education experiments with its "product mix" to strengthen its market just as any multi-product corporation would -- pushing "growth" products, adding new items and "re-packaging" old-reliables to reflect changing customer tastes, and dropping poor sellers or decreasing their volume of manufacture.

Our earlier discussion of credit study cluster marketing de-emphasized course subject matter because the typical credit student is like the buying party to a long-term purchase contract whose ultimate product is a prize (graduation with A.A. degree, transfer to a four-year school, job advancement) contingent upon the customer's contract fulfillment; the nature of the contingent purchases (courses in particular fields of study) tends to be overshadowed by and subsumed in the formal objective of credit work. (Indeed, sometimes a student's "contract" requires him to purchase disagreeable course products.)

But open-enrollment non-credit study is usually not formally tied to larger purposes. Sheer subject matter interest suffices in most instances to explain the amount and type of course-taking. Furthermore, administrators usually have far more leeway in making market-based adjustments to their institution's non-credit "product mix" since educational mission here tends to be defined simply in terms of satisfying community study interests. Thus, for most of the remainder of this report, we will focus upon cluster preferences for different areas of study.

Subject Matter Popularity and the Total Market. It is not practical to examine non-credit subject interest markets on a course-by-course basis since P.G.C.C. during the last five years has offered well in excess of 2,000 separate ones. Nor is this necessary, since courses naturally group themselves into larger areas of interest, and it is usually out of a felt need to pursue an area of interest rather than a narrow subject matter that potential students make a decision to become actual students: not out of fascination with dark room technology per se but with "photography" which includes the former.

By means already described, we created a categorizing scheme for assigning each of the recent 2000-plus courses offered by the College's non-credit division to ten broad interest area headings and 37 specific headings. The table below depicts the broad

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interest area preferences of our total non-credit student sample, as reflected in actual enrollment volume per area.

Broad Area of Interest	No. of Enrlmts	% Total
PERSONAL FINANCE/CONSUMERISM/BUSINESS	9,332	14.8 %
MANUAL TRADES/CRAFTS	8,490	13.4 %
NON-MANUAL TRADES/INFO TECHNOLOGIES	7,563	12.0 %
CHILD DEVELOPMENT/DAYCARE MANAGEMENT	6,466	10.2 %
HEALTH & FITNESS	5,507	8.7 %
PERSONAL DEVELOPMENT/PLANNING	5,469	8.6 %
OFFICE SKILLS/TECHNOLOGIES	5,066	8.0 %
ENRICHMENT/SPECIAL INTERESTS/HOBBIES	3,843	6.1 %
MISCELLANEOUS OCCUPATIONAL	3,663	5.8 %
ARTS & HUMANITIES	2,941	4.7 %
UNCLASSIFIABLE	4,893	7.7 %
TOTAL	63,233	100.0 %

The broad course-typifying headings and associated enrollment counts, listed by enrollment weight, may give a rough indication of the relative "popularity" of the different varieties of continuing education "product" offered here in recent years. Seemingly, most in demand were courses servicing various financial, occupational and immediate familial interests; less apparently attractive were those more clearly recreational and "academic" in subject orientation.

Wondering whether the above pattern was not at least in part an artifact of way we constructed the major subject headings out of the 37 specific course-type headings, we also rank-ordered the latter by enrollment weight with the following results (only top ten and bottom ten headings shown):

Child Devl/Daycare Mgt	10.2 %	Enrichmt/Spec Interest	1.2 %
Mgt Institute	6.6 %	Television Technology	.8 %
Manual Trades/Crafts	6.5 %	Justice Technology ...	.7 %
Misc Occupational	5.8 %	Enrichmt/"New Age" ...	.7 %
Computer/Info Systems	5.3 %	Office/Bookkeeping ...	.6 %
Small Business Skills	5.2 %	Inter-Pers Communicatn	.6 %
Photography	4.8 %	Writers' Workshop	.6 %
Family/Gender Issues	4.4 %	Enrchmt/Travel/History	.6 %
Fitness & Exercise ..	3.9 %	Prof/Acad Test Prep ..	.4 %
Office/Word Processng	3.4 %	Hospitality Tech	.4 %

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As can be readily seen, the basic pragmatic bias of recent non-credit students seemed to be corroborated, although the more microscopic approach did reveal that not all of the lower enrollment fields were "soft" in character (Television, Justice and Hospitality Technologies; Professional/Academic Test Preparation). In fact, one of the pure "Enrichment" categories -- (Style/Beauty/Home 2.2 percent; not shown on table) turned in a respectable fourteenth ranking.

But a major caveat is in order here: A good market analyst would avoid over-interpreting total product market breakdowns of the kind just discussed, and would hold off on immediately re-prioritizing the allocation of marketing resources and re-working product lists. This is the reason we deliberately employed quote marks and terms like "seemingly" and "apparently" above. The reasons for this sensible reticence are three:

First, product market size is always more than a simple reflection of consumer interest, albeit this is always the essential factor. The past marketing behavior of the selling organization plays an important part as well. Some interest areas may currently enjoy disproportionate enrollment rates in part just because of an earlier P.G.C.C. decision to push marketing and to increase course offering there, while other areas -- perhaps high in potential -- may now be languishing mostly for want of publicity and development. It might even be true that top drawing fields are already "market saturated" and therefore next to impossible to expand further.

Second, the main reason for implementing product diversification in the first place 's to enable the seller to prosper and grow by satisfying a pluralism of different needs, interests and tastes. The main insight here is that there is really no such thing (certainly not in continuing education) of a single unitary market which can be properly exploited by offering one or a few exceptionally charismatic products. Rather, the "market" is actually a constellation of "micro-markets", some large and some small but each forming a special marketing niche for one or more particular products from out of the whole range. A micro-market may be small, relative others, but it does nevertheless represent a stable group of continuing customers for a product, has its proportionate place in the bottom line, and therefore should be maintained. It may even be true that, collectively, a selling organization's smaller micro-markets might constitute a significant chuck of all sales. In our case, the interest areas in the bottom half of ranked enrollments generate a full fifth of <u>all</u> enrollments. Why lose this business for want of cultivation?

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Third: What is a "product" anyway? Do consumers shop for particular items or are they really looking to buy dreams and life-styles, the list of items representing those being almost inter-changeable? If it is more often than not the latter, as marketing research and advertising suggest, then what matters is not so much the individual products in a catalog and how well each individually sells. What really counts is the question of what life-style-reflecting product themes customers see in the mix of offerings and which product themes dominate and define product micro-markets. The main problem, then, with our broad interest area analysis was that it was too arbitrary, and with our analysis of the 37 specific interest areas that it was too "atomic". Neither could give us a true picture of how our non-credit customers themselves perceive and actually coalesce around the lifestyle themes implicit in P.G.C.C. continuing education offerings.

Non-Credit "Product Theme" Markets. Fortunately, it was possible further to manipulate the specific interest area enrollment data towards these ends. The statistical technique used is known as "factor analysis" and was specifically designed to identify the small number of general empirical dimensions (called "factors") underlying all of the complicated correlations among a large number of variables. It proved to be our key in extracting a manageable set of the customer-perceived "product themes" implicit in student sample interest area enrollment behavior.

The process involved breaking down the whole non-credit student sample by student clusters; for each cluster, calculating index scores (against all-student percentages) for all 37 specific interest areas; factor analyzing the results; interpreting each extracted "factor" (a new variable with its own score for each cluster) as representing a "product theme"; characterizing the particular "product theme" carried by each factor according to the kinds of interest areas merged to create factor scores; and finally converting raw factor scores into product theme index scores, using the factor score mean for all clusters.

The only slightly overlapping "product themes" to emerge from all this were seven:

I. "Career Exploration." [18.2 percent of all enrollments] The factor on which Theme I is based came out of a pattern of cluster course-taking showing concern with developing job skills in and knowledge of a wide range of white and blue collar fields (management, hospitality technology, general office work, automotive repair) plus outstanding interest in career and life planning courses.

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II. **"Entrepreneurship."** [13.9 percent] Theme II's factor is built up out of a pattern of cluster involvement in courses on small business planning, personal financial planning, consumer concerns and issues, professional credentials test preparation, and developing effective communication and computer skills.

III. **"High Technology."** [14.3 percent] Theme III is indicated by a factor combining disproportionate cluster interest in television technology, photography, computers and information systems and office word processing courses.

IV. **"Trades & Crafts."** [11.5 percent] The product theme suggested by the fourth factor's derivation pattern argues a special concern with genuinely manual trades and crafts or with occupational and interest areas assigned by tradition to males -- construction, plumbing, carpentry, electrical work, automotive repair, motorcycle riding, police work and office accounting.

V. **"Home & Office."** [29.3 percent] The factor pattern underlying Theme V is particularly intriguing. It is a gathering of enrollment emphases in: personal and family concerns -- life planning and life skills development, child development and daycare management, and family and gender issues; physical health -- CPR training, general health knowledge; and office secretarial skills of all kinds. We speculate that this package of interests best reflects the lifestyle concerns of women, particularly working mothers.

VI. **"Creative Impulse."** [8.5 percent] Theme VI is implied by a factor marking disproportionate course-taking in photography, interior design, creative writing, unusual hobbies and pursuits, and "New Age" subjects.

VII. **"Life Style."** [5.4 percent] The last theme is indicated by a factor pattern combining enrollment demonstrated interest in consumer issues, beauty, cosmetics, fashion, gourmet cooking, home arts & crafts, travel and other times, cultures and languages.

(We note in passing that a few interest areas refused to amalgamate with larger product themes despite factor analysis. These "independent" interest areas were: Music/Instrumental Training, Fitness & Exercise, Sign Language and Horticulture.)

<u>Cluster Responses to "Product Themes" (PTs).</u> How do the twenty-three life-style clusters respond to the seven "product themes" implicit in our non-credit catalog of courses? To find out, we analyzed the historical PT index scores of our student cluster sub-samples, creating seven cluster PT rank-ordering tables and a master table presenting the full 23x7 matrix of cluster-by-PT data.

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A thorough review here of this detailed material would be tedious, and luckily, unnecessary. (See Appendix for a complete set of cluster PT-response tables.) For cluster PT responses turned out to be extremely orderly and using a technique known as "cluster analysis" which systematically aggregates units into larger entities according to unit attribute similarities (the same technique unemployed to create the life-style clusters in the first place), it was easy to group student clusters into a manageable set of eight readily interpretable PT-response "super-clusters." The results are shown on Table 4 (see Appendix Table III for individual cluster PT scores).

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 ---------------------------------------------------------------
| TABLE 4.   Super-Cluster Product Theme Index Scores*          |
|---------------------------------------------------------------|
|           ----------------Product Theme----------------       |
|             I.     II.   III.  IV.    V.    VI.   VII.         |
|           CAREER  ENTRE- HIGH TRADE/ HOME/ CREA-  LIFE         |
| SUPER-CLUST EXPLOR PREN. TECH CRAFTS OFF.  TIVE   STYLE        |
|                                                               |
|  A-Fun & Profit   95    127    92    88    81    110    169    |
|  B-Dabblers       76     98   142    48    44    213     89    |
|  C-Generalists   106    100    95   103    89    101    119    |
|  D-Better Jobs   115     82    97   132   105    110     84    |
|  E-Go-Getters    154    151    68    87    68     95     50    |
|  F-Dream Key      79    108   108    79   107     77     72    |
|  G-Escape Path    94     88   128   117   137     64     55    |
|  H-Home & Office  74     23    63    77   175     83     56    |
|                                                               |
| * Mean of indiv. cluster index scores within super-cluster    |
|---------------------------------------------------------------|
| Super-Cluster Key:                                            |
| A-Cntry Club (1) Aging Aff (3)   E-Country Blues (23)         |
|   Govt Mix (7) New Collar (10)   F-Srg Min (11) Emrg Min (17) |
| B-Soph Mix (4)                     Cty Lin (24)               |
| C-Exrb Dream (2) Bway Havn (5)   G-Bohm Mix (14) BC Blck (21) |
|   Rbow Manor (6) Brght Beg (8)     Downtown (22)              |
|   Homestders (9) Levittwn (15)   H-Ft Georg (12)             |
| D-Mnrty Row (16) Mid Amer (18)                               |
|   Old-Timrs (19) Boom Twn (20)                               |
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Super-Cluster A is made up of four aging, upper middle-class clusters, predominantly professional in occupational status and with a high concentration of government workers. The A-PT response pattern (dubbed "Fun & Profit") shows a clear preference for "Entrepreneurial (II)" courses and those of the "Lifestyle (VII)" variety. This suggests, given the high level and security of their

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jobs, that A-cluster non-credit students use P.G.C.C. non-credit education mainly to learn how to maximize their personal finances, appearance, home amenities and cultural knowledge -- in short, to "enhance the quality of life." It is also possible that there exists a concentration of consultants or would-be consultants in this group, seeking improved small business management skills.

Super-Cluster B is really only a single regular cluster but with a very distinctive non-credit response style -- Sophisticate Mix. This quite wealthy, hyper-educated, culturally oriented segment seems to have little need for the practical educational opportunities offered here, but does to some extent use non-credit P.G.C.C. courses to "dabble" in the arts and sciences (note high index scores only for "Creative Impulse (VI)" and "High Tech (III)" themes.

Super-Cluster C includes a range of mostly comfortable middle-class, mostly white suburban clusters, socio-economically a step or two below A and B and on average more youthful, in the earlier phases of career and family cycle. We have nicknamed this cluster collection "The Generalists" because its PT response pattern is so flat -- C-student clusters do not deviate significantly from the all-student mean on any of the seven non-credit thematic dimensions except, perhaps, on "Life-Style (VII)" which elicited a mildly elevated index score. The key to Super-Cluster C's middling PT responses may be its middling position in the county social structure. It is not economically entrenched enough yet to entirely forego pragmatic job-related courses and to indulge special tastes (A and B); still, its relative comfort and security makes it less interested than more downscale cluster groupings in "get-ahead" education. In any case, the data indicate that there exists an all-purpose non-credit course market in Prince George's, than "Generalist" Super-Cluster C is that customer aggregation.

The inhabitants of Super-Cluster D are drawn from several lower middle-class clusters, mixed lower white collar/blue collar in occupation, mostly middle aged (except for Boom Towners), mainly inner-suburban (again except for Boom Towners), and predominantly white (with the exception of Minority Rows). The PT response pattern shows special disproportionate interest in manual trades and crafts skill courses (Theme IV) and to a lesser degree those designed for "Career Exploration" (I). Given this course pattern and the demographic pattern of aging and occupational underachievement found here, we have nick-named this group "Better Jobs" and suggest that what we are seeing at work in super-cluster D is current occupational restlessness and dissatisfaction.

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In many ways, Super-Cluster E is peculiar. It includes only one regular cluster -- Country Blues, a rural lower middle-class segment with a strong blue collar presence, a significant black minority, and with pockets of genuine poverty. Such attributes would lead us to expect disproportionate interest in courses dealing with manual trade and clerical skills development. But the data show that E tends to avoid "trade courses" and instead it evinces positive responses only to courses focusing on career advancement and entrepreneurship (PT I and II) -- in fact, the most extreme responses of any cluster, "super" or otherwise. We speculate that the "Go-Getter" impulse characterizing Country Blues PT response may have something to do with the "frontier" quality of its neighborhoods. Cluster 23 areas are the furthest-out, fastest growing in the County. Living relatively poorly while frantic development and opportunity-creation occurs all around one may spark the kind of fierce ambition Country Blues PT pattern seems to represent.

Super-Cluster F is dominated by two almost-middle class, black inner-suburban clusters. Its PT response pattern is not strongly delineated, but to the extent that Fs disproportionately emphasize non-credit study themes, the ones selected are "Entrepreneurship (II)," "High Tech (III)" and "Home & Office" in roughly equal degrees. We have labelled this PT-response group "Dream Key" because most households in this collection of clusters are poised on the very brink of the American Dream of well-paying white collar employment and suburban homeowning but are experiencing difficulty in securing it due mainly to relatively unremunerative, dead-end jobs. For such a group, gaining careers in small business, high tech fields and even respectable office work may seem to be the key.

Super-Cluster G is made up out of three youthful blue-collar renter clusters, the majority of whose households are either black, Hispanic or Asian in ancestry. Its PT response pattern clearly highlights a strong occupational motive for non-credit course-taking: highest index scores in order -- "Home & Office" (V), "High Tech" (III) and "Trades & Crafts" (IV). We read this pattern as a rational response to objective age and socio-economic circumstances. How to escape the trap of near- or actual poverty many Gs find themselves in? The answer is the traditional one -- skilled jobs with decent take-home, dignity and prospect for advancement. But the only path to these for the young who lack experience and contacts is formal training such as can be acquired at a community college. Thus, the "Escape Path" chacterization. (Superficially, the G response pattern resembles that of the F pattern described just above. The F pattern, however, is much less pronounced, and includes many more "upscale" tendencies (e.g., the "Entrepreneurship" emphasis); furthermore, we would argue from demography that the F-pattern represents more of an attempt to use education to break into the middle class than to break out of poverty, as is the G-case.)

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The last super-cluster PT response pattern to consider is H's -- which is the same as examining "Ft. George's" pattern since H consists entirely of Cluster 12. This unique "military" cluster (essentially Andrews Air Force Base and environs) revealed as one might expect a unique PT response pattern -- almost exclusive concern with Office Technology coursework! This seemingly anomalous finding (extreme interest in a mostly female-oriented product theme within a mostly male world) is probably traceable to a special situation identified by the Continuing Education Office. In its experience, clerical courses have always been the main draws at the Andrews base extension center because the Air Force refuses to compensate its military personnel for non-credit education; this policy's effect has been to limit participation in P.G.C.C. continuing education to ambitious dependent spouses and to base-employed civil service clerks who are compensated. (We might add that this also helps to explain Cluster 12's very low non-credit penetration rate.)

Conclusions

As in the credit student case, analyzing non-credit students by lifestyle cluster appears to be a viable tool for direct marketing and institutional planning. In particular, the cluster approach to understanding non-credit course-taking by subject matter categories seems to yield extraordinarily meaningful and useful results.

Our recent continuing education open-enrollment student body is revealed as similar in geo-demographics to the parallel credit student sample: roughly reflective of the full sociology of the surrounding County (implying fair success in pursuing our educational mission to provide higher learning opportunities to all constituencies), yet somewhat underrepresented in the lower socio-economic levels (indicating good growth and marketing potential). And the non-credit course-taking behavior of student cluster sub-samples argues for a genuine matching of open-enrollment offerings with the palpable needs and interests of differing social groups we attempt to service, while pointing towards new areas of possible expansion.

Karl Boughan

Research and Planning Analyst

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A P P E N D I X   T A B L E S

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APPENDIX TABLE I.   Area of Interest Category Assignments:
                    Course Subject and Number Codes

Areas of Interest

Life Skills & Remedial .... SKB: 300-302 307 308 318 320 323
                                     326-331 335-350 352-356 359
                                     363-399
                                EDU: 300-399
                                ENG: 300-399
                                LGE: 330 332 333
                                MTH: 300-399
                                SDP: 300-399

Acad/Prof Exam Prep .... SKB: 332-334 357 361 362

Life Goals/Career Planning ... JCL: 300-399

Family & Genders Issues ...... FAM: 300-399
                                GEN: 416

Inter-Persnl Communication ... COM: 300 305 309-323 328 332-399

Persnl Financial Planning .... CON: 303-396 308 311 322 337 361
                                FIN: 300-399

Gen Consumer/Do-It-Yourself .. CON: 300-302 307 309 313 316-320
                                     323-326 328 329 331-336
                                     338-340 342-345 350-357 360
                                     362 363 365 366 368-371
                                     376-379 383 385-391 393-399
                                DIY: 300-328 330-335 337-399
                                GEN: 300-413 417-499
                                XXX: 300 303 304 309-399

Management Institute .... MGR: 300-399
                                MGT: 300-399
                                ENR: 310

Small Bus Skills/Planning .... BUS: 300-499
                                ENR: 301 303 355
                                GEN: 414

Hospitality Technology .... OCC: 328 329 333 338-340 342
                                     344-346 355 374 375 384-390
                                OCU: 342 361

Criminal Justice Tech .... LAW: 300-499
                                OCC: 352

Television Technology .... CTV: 300-399
                                XXX: 306 307

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Photography .... CRE: 300-399

Computer/Info Systems .... DPR: 300-399

Genl Office Technology .... OFC: 301 304-307 317-320
                                    345 346 353

Office Accting/Bookkeeping ... OFC: 308-313 362

Office Typing/Data Entry ..... OFC: 314-316 326-328 365 368 373

Office Word Processing .... WPR: 300-399

Constructn & Manual Trades ... CST: 303 313 325-329 338-341 343
                                    345-356 362 365-382 384
                                    386-391 394-399
                               OCC: 300 309 310 314 336 350 391
                               OCU: 301 306 313 326-328 332 350
                                    355 356 367 383 384 393 394

Interior Design & Related .... CST: 311 342 363 378 383
                               DIY: 336
                               OCC: 304 308 315
                               OCU: 302 316

Horticulture/Landscaping ..... CST: 320-322 357-361 364
                                    385 392 393
                               DIY: 329
                               ENR: 379 381
                               OCU: 334 372-374

Automotive Repair .... CON: 315 321 330 341 359 372
                                    381 382 384
                               OCC: 311-313 316 341 343 362
                                    363 397
                               OCU: 307 353 382 385 386

Motorcycle Safety .... OCC: 303 307 319 320 330-332

Child Devl/Daycare Mgt .... DCR: 300-399
                               OCC: 302 327 334 341 383 389-392

Miscellaneous Occupations .... OCC: 301 305 306 317 318 321-326
                                    335 347-349 353-361 364-373
                                    376-382 392-396 399
                               OCU: 300 303-305 307-312 314 315
                                    317-325 329-331 333 335-340
                                    343-349 351 352 354 357-360
                                    362-366 368-371 375-381 387
                                    395-399
                               INS: 302
                               XXX: 302 305

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Gen & Prof Health Courses ....  HES: 300-302 304 307-309 319-336
                                     338-343 346-374 376 378 380
                                     383-399
                                XXX: 301 308

C.P.R. & First Aid Train .....  HES: 305 306 310 312 318 337
                                     344 375

Fitness & Exercise ...........  HES: 303 311 313 314 316 317 345
                                     378 379 381 382
                                ATH: 300-399

Music/Instrumental Lessons ...  MUS: 300-399

Prof & Recreatnl Writing .....  SKB: 302 305 306 309-312 314-317
                                     321 322 324 325 358 360
                                COM: 303

Foreign Languages ............  LGE: 300-329 334-399

Sign Language Training .......  COM: 306 324-327 329-331

Travel/History/Cultures ......  TRS: 300-399
                                ENR: 316 318 319 346 348 365
                                     366 384
                                HIS: 300-399

Hobby Arts & Crafts ..........  ART: 300-399
                                CON: 310 312 314 327 346-349 358
                                     364 367 373-375 380 392

"Style"-Beauty/Cooking/Etc ...  ENR: 302 305 320 327 328 336-338
                                     343 347 354 358 359 363 369
                                     372 373 383 389 396
                                GOU: 300-399
"New Age"-Astrol/Hypnot/Etc ..  ENR: 313 322 332 333 335 344 345

                                     361 362 364 374 375 386 395
                                     397 398

Other Special Interests ......  ENR: 304 306 307 309 311 312 314
                                     315 321 323 329-331 334 339
                                     341 351 367 370 371 376-378
                                     385 390
                                PHL: 300-399
                                PSY: 300-399
                                USA: 300-399
                                WMN: 300-399
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REAL ESTATE ..................  REA: 300-399
                               RES: 300-399

CHILD DEVELOPMENT CLINIC .....  CDC: 801-803

SPECIAL POPULATIONS ..........  TAG: 300-399
                               YAP: 300-399
                               YTH: 300-399

SPECIALLY CONTRACTED .........  Any: 500-599

SENIORS ONLY .................  Any: 900-999

UNCLASSIFIABLE ...............  Any Other than Above
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APPENDIX TABLE II. Non-Credit Students and Enrollments by Area of Interest Categories*

Areas of Interest	At Least 1 Course	%	Nos. of Enrlmts	%	Enrlmts /Persn
PERSONAL DEVELOPMENT			5,469	8.7	**1.46
Life Skills & Remedial	962	2.7	1,134	1.8	1.18
Acad/Prof Exam Prep	206	.6	214	.4	1.04
Life Goals/Career Planning	934	2.6	1,022	1.7	1.09
Family & Genders Issues	1,020	2.8	2,773	4.4	2.72
Inter-Persnl Communication	259	.7	326	.6	1.26
FINANCE & BUSINESS			9,332	14.8	*1.36
Persnl Financial Planning	696	1.9	816	1.3	1.17
Gen Consumer/Do-It-Yourself	847	2.3	1,085	1.8	1.28
Management Institute	2,817	7.8	4,179	6.6	1.48
Small Bus Skills/Planning	2,187	6.0	3,252	5.2	1.49
TECH JOB TRAINING			7,563	11.9	*1.72
Hospitality Technology	220	.6	235	.4	1.07
Criminal Justice Tech	196	.5	492	.7	2.51
Television Technology	346	1.0	502	.8	1.45
Photography	1,355	3.7	3,030	4.8	2.24
Computer/Info Systems	2,414	6.7	3,304	5.3	1.37
OFFICE SKILLS			5,066	8.0	*1.22
Genl Office Technology	695	1.9	850	1.4	1.22
Office Accting/Bookkeeping	310	.9	345	.6	1.11
Office Typing/Data Entry	1,490	4.1	1,692	2.7	1.14
Office Word Processing	1,560	4.3	2,179	3.4	1.40
MANUAL JOB TRAINING			8,490	13.5	*1.33
Constructn & Manual Trades	2,918	8.0	4,104	6.5	1.41
Interior Design & Related	717	2.0	805	1.3	1.12
Horticulture/Landscaping	760	2.1	1,224	1.9	1.61
Automotive Repair	749	2.1	1,089	1.8	1.45
Motorcycle Safety	1,211	3.3	1,268	2.0	1.05
CHILD DEVL/DAY CARE MGT	3,265	9.0	6,466	10.2	1.98
MISCELLANEOUS OCCUPATIONS	2,568	7.1	3,663	5.8	1.43

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Non-Credit Course Area	At Least 1 Course	%	Nos. of Enrlmts	%	Enrlmts /Persn
HEALTH & FITNESS			5,507	8.7	*1.46
Gen & Prof Health Courses	1,101	3.0	1,688	2.7	1.53
C.P.R. & First Aid Train	1,267	3.5	1,388	2.2	1.10
Fitness & Exercise	1,383	3.8	2,431	3.9	1.76
ARTS/HUMANITIES			2,941	4.6	*1.39
Music/Instrumental Lessons	587	1.6	910	1.5	1.55
Prof & Recreatnl Writing	276	.8	329	.6	1.19
Foreign Languages	585	1.6	774	1.2	1.32
Sign Language Training	617	1.7	928	1.5	1.50
ENRICHMENT			3,843	6.1	*1.35
Travel/History/Cultures	281	.8	366	.6	1.30
Hobby Arts & Crafts	601	1.7	846	1.4	1.41
"Style"-Beauty/Cooking/Etc	885	2.4	1,421	2.2	1.61
"New Age"-Astrol/Hypnot/Etc	395	1.1	449	.7	1.14
Other Special Interests	581	1.6	761	1.2	1.31
UNCLASSIFIABLE*	457	1.2	4,893	7.7	----
ALL	**36,725**	---	**63,233**	**100.0**	**1.72**

* Student sample (N=36,725) excludes pure restricted types (enrolled only in Child Development Clinic, Special Population, Real Estate, 500-level and 900-level courses or programs; Enrollment sample (N=63,233) as generated by above student sample, but also not counting course enrollments in areas just enumerated in parenthesis.

*° Area Mean

*** Includes miscellaneous and obsolete codes

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APPENDIX TABLE III. PT Index Scores by Super-Cluster & Cluster

SUPER/CLUSTER	PT: I. CAREER	II. E TRP	III. TECH	IV. TRADES	V. HM/OFF	VI. CREAT	VII. STYLE
Country Club-1	111	125	85	88	73	128	175
Aging Affluence-3	85	105	92	98	86	120	159
Government Mix-7	77	173	96	71	85	88	183
New Collars-10	109	107	93	98	80	104	157
/FUN & PROFIT	95	127	92	88	81	110	169
Sophisticate Mix-4 /DABBLERS	76	98	142	48	44	213	89
Exurban Dream-2	109	100	88	101	91	97	117
Beltway Havens-5	103	102	91	99	77	101	126
Rainbow Manors-6	95	112	97	103	94	94	107
Bright Beginning-8	109	100	109	97	89	104	123
Homesteaders-9	117	104	89	92	50	119	101
Levittown P.G.-15	104	84	93	126	96	91	141
/GENERALISTS	106	100	95	103	89	101	119
Minority Rows-16	119	94	112	110	116	101	76
Middle America-18	114	61	92	149	114	99	93
Old-Timers-19	100	70	106	143	99	103	109
Boom Town-20	125	103	77	125	92	135	57
/BETTER JOBS	115	82	97	132	105	110	84
Country Blues-23 /GO-GETTERS	154	151	68	87	68	95	50
Srgng Mnorities-11	89	113	111	78	106	49	89
Emergng Minorit-17	87	102	105	86	109	99	71
City Line-24	60	110	108	74	107	84	56
/DREAM hEY	79	108	108	79	107	77	72
Bohemian Mix-14	83	87	148	121	124	49	64
Blu Colr Blacks-21	105	86	101	129	143	57	52
Downtown P.G.-22	95	90	134	101	143	87	50
/ESCAPE PATH	94	88	128	117	137	64	55
Fort George-12 /HOME & OFFICE	74	23	63	77	175	83	56

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