Perceptions of the Willingness of Part-Time Instructors in Community Colleges in the U.S. to Engage in Professional Development Opportunities and the Best Method(s) of Delivering These Experiences

Brian A. Sandford, Ph.D.
Julie D. Dainty
Gregory G. Belcher, Ph.D.
Robert L. Frisbee, Ed.D.
Pittsburg State University

ABSTRACT

The purpose of this study was to identify the perceptions of occupational education officers concerning the willingness of part-time instructors in community colleges in the United States to attend professional development opportunities and the best methods and times to deliver these activities. The findings indicate that community colleges should consider providing at least one part-time faculty professional development activity per academic year, scheduling these activities to occur in the evening or at night, during the Fall of the year, as well as factor in the distance and travel times which part-time faculty may encounter when choosing to participate. Community colleges should also consider other sources outside of their own institution to teach part-time faculty professional development activities depending on the topic and the level of expertise required. Intrinsic rewards to promote and maintain participation in part-time faculty professional development programs and activities should continue to be emphasized to encourage involvement with consideration given to possible remuneration of per diem and travel expenses.

Introduction

Higher education personnel have found that the use of part-time teachers helps to meet the institutional needs of maintaining current and relevant training programs in the technology driven climates of new and emerging career and technical areas; providing training programs on an occasional, on-demand basis; and reducing the risk of offering ongoing programs for which low enrollments are anticipated. Additionally, numerous part-time faculty have been hired to maintain close ties with business and industry as many are practitioners in the field in which they are teaching. In this way, colleges can remain on the cutting edge in the face of changing career needs, skill expectations, and the world of work (Leslie, 1998; Phillippe & Patton, 2000). Community colleges have begun to realize that these very same part-time faculty/industry practitioners strengthen their career and technical programs with the application of real world perspectives. In fact, many new skills-related technology courses often have required the expertise that full-time faculty do not have.

Over the last 35 years, the purposes for staff development, in general, have changed from that of assisting educators with becoming subject matter experts to assisting educators with understanding and using effective processes of instruction (Kisner, Elliott, Foster, Covington, King, & Liou, 1998). The change has been one of professional development that focuses on
"learning about" to one that focuses on "learning how to" (Ouston, 1997). Imel (1990) observed professional development as a continuing process consisting of activities that promote, encourage, and enhance professional growth. Stern (1989) viewed professional development as a lifelong learning process the purpose of which, among educators, was to improve instruction, professional skills, and organizational functioning as well as personal growth.

Professional development has also been recognized as crucial not only to the individual but also to the promotion of effective and efficient organizations (Kydd, 1997). Indeed, professional development has evolved having moved away from the needs of the individual educator toward a more systemic approach that combines and embraces the needs and commitments of both the organization as well as those involved in the organization. In short, organizational development will only happen if the individuals within it are being developed (Kisner, et al., 1998). Professional development has become less of an individualistic process centered on the needs of the educator and more of an organizational effort where administrators, staff, and outside sources are also involved in the professional development process. It is clear that in order to remain competitive in a world with increasing openness, democratization, and globalization of the world economies, organizations must view professional development as an investment and education is no exception (Bassi, Cheney, & Van Buren, 1997). In many ways, professional development has become synonymous with organizational development and without professional development; educational institutions will have difficulty remaining competitive.

The 'temporary' label pinned on part-time faculty has, in many instances, been used to legitimize the neglect of their professional development and the withholding of the same support structure that full-time faculty consider to be correlational to merit and status (Rajagopal & Farr, 1992). In spite of this, professional development of part-time community college faculty has become both a need and a requirement for today's community college. Teacher shortages, new technologies, budget shortfalls, increased enrollment and demands for career and technical teacher certification are directing more and more attention to the needs for the professional development of career and technical education faculty (Brown, 2000). It has been an issue which will undoubtedly occupy an increasing amount of time, money, and effort for community college administrators and their staff in fulfilling missions of institutional effectiveness and upholding professional reputations.

**Purpose and Objectives**

More complete information is needed to understand the characteristics of the part-time community college faculty member. More specifically, additional information is needed regarding the kind, amount, and method of exposure to professional development activities which they receive or would be willing to access. The purpose of this study was to assess the perceptions of occupational education officers concerning the willingness of part-time faculty to participate in and the most effective methods of delivering part-time faculty instructional professional development activities within the community colleges in the United States. To accomplish the purpose of this study, a research effort including instrument development and subsequent data collection and data analysis was initiated to determine the perceptions of occupational education officers concerning the willingness to participate and the most effective method(s) of delivering professional development activities to part-time career and technical
program faculty in the community colleges in the United States. It is recognized that the major limitation of this study is that the data was collected from occupational education officers rather than the part-time instructors themselves.

To accomplish the purpose of this study, the following objectives/research questions guided the overall research effort, instrument development, data collection, and data analysis effort:

1. What are the perceptions of occupational education officers concerning the willingness of part-time instructors to engage in professional development opportunities in the community colleges in the United States, and;
2. What are the perceptions of occupational education officers concerning the most effective method(s) of delivering professional development activities to part-time instructors in the community colleges in the United States.

**Background**

The purposes of a Minnesota study conducted by Pucel, Walsh and Ross (1978) were to determine whether or not there should be some type of teacher education program for part-time adult vocational instructors, if such a program should be different from those currently available to postsecondary instructors and, to possibly develop some recommendations for the program's composition. The data for the study was obtained from a survey instrument administered to a representative sampling of part-time adult vocational instructors and all of Minnesota's area vocational-technical institution's adult vocational coordinators. Pucel et al. (1978) reported that limited information was discovered in reviewing the literature with regard to studies which identify the skills which part-time adult vocational teachers need or the most effective system for delivering professional development activities to this group of teachers. However, as part of the effort to develop the survey instrument for the study, there were several research efforts encountered which did contribute directly to the formulation of the list of 61 skills included in their questionnaire as well as identifying some delivery systems used for teacher training throughout the United States.

A study by Goetsch (1978) was conducted to determine what was being done nationally in terms of in-service education for part-time vocational faculty and to determine the most pressing in-service needs of part-time vocational faculty in Florida. The findings of Goetsch's study, as well as his review of the literature from 1969-1976, revealed that the issue of in-service training for part-time vocational faculty was a critical issue then and continues today. Results of his study were used to develop an in-service education program for part-time faculty that could serve as a model for other institutions.

The rapid expansion in numbers of part-time teachers in higher education and the recent emphasis on quality in university teaching has created a context in which academic and professional development for part-time faculty cannot be overlooked (McKenzie, 1996). As Kisner, et al. (1998) stated, "Vocational teachers must not only be masters of their disciplines, but also versed in related academic knowledge" (p.1-2). Professional development, in the pedagogical context, has been referred to as the process by which capable teachers achieve
higher professional competence within their area of expertise as well as within the teaching discipline, expand their understanding of self, role, context, and career (Duke & Stiggins, 1986).

The U.S. Department of Labor (2009) projected that employment was expected to grow faster than average (14-19%) for postsecondary teachers through 2018. Specifically, welfare to work policies and the growing need to regularly update skills in the fast paced era of technology has created new opportunities for postsecondary teachers at the community college level. There was also expected to be a large number of openings due to the retirement of postsecondary faculty who were hired in the late 1960s and early 1970s to teach the baby boomer generation (Phillippe & Patton, 2000; U.S. Department of Labor, 2009). Increased reliance on part-time faculty to meet potential teacher shortages has elevated the importance of examining the types and quality of training and in-service development that future teachers may receive. Many times, part-time instructors have been those persons who were highly skilled in an occupational area, but have not had the necessary pedagogical training (Phillippe & Patton, 2000). Goetsch (1978) reported that it was very common to hear a part-time teacher tell their colleagues or supervisor that they know how to do it, but not how to teach it.

One of several ways to improve teacher and instructional quality, and concomitantly student performance and achievement, has been to ensure teachers are initially prepared to teach through teacher education programs, licensure, mentoring, or other similar efforts (Legislative Office of Educational Oversight, 2001). A second way, and often the only available method in the case of part-time community college faculty, has been through the professional development of practicing teachers. If higher education is to maintain a balance between theory and praxis, the professional skills, contemporary experiences, and "real-world" focus of part-time academic staff needs to be identified and subsequently applied in concert with the ability to effectively teach (Watters & Weeks, 1999).

Conceptual Framework for the Study

The following model provided a baseline conceptualization of the factors which influence the perceptions of the occupational education officers concerning the activities, needs, and methods of delivery of professional development for part-time community college occupational and technical faculty. The model shows that interactions with part-time faculty members and the actual professional development activities provided by the institution may impact their perceptions of the current willingness of part-time faculty to participate in professional development activities as well as how to best deliver these experiences. The perceptions of the occupational education officers would, in turn, influence the recommendations for providing part-time faculty professional development opportunities including their method of delivery which may also influence the part-time faculty members' willingness and ability to participate in those activities.
Methods and Procedures

This study used descriptive survey research to achieve the ends sought of assessing the perceptions of occupational education officers concerning the willingness of part-time career and technical program faculty in community colleges in the U.S. to engage in professional development opportunities and the most effective method(s) of delivering these experiences. The target population for this study was the occupational education officers at community colleges in the 50 states of the U.S. The frame for the study was the American Association of Community Colleges' (AACC) list of community college occupational education officers. The AACC specifically categorized and listed these individuals as “Occupational Education Officers” and the term is maintained in this research effort to maintain continuity. The “occupational educational officer” was believed to be in the best position to provide current and relevant information concerning the part-time career and technical faculty within their community college. Other administrative positions were considered as possible respondents to the survey but their proximity to part-time instructors was determined to be too distant as well as their positions would be unfamiliar with the kinds and types of data sought by this study. Choosing the occupational education officer position was deemed appropriate in that the data would be less distorted and a more complete response set would be attainable from a person closer to the part-time faculty instructor. The accessible population was comprised of 101 individuals and all were included within this study.

The survey instrument was designed with items that measure the perceptions of occupational education officers concerning the perceived willingness of part-time faculty to participate in professional development activities and the most effective method(s) of delivering these opportunities. The total response rate was 51% of the population. The first and most important strategy for controlling nonresponse was to get back as many usable questionnaires as
possible. In the attempt to maximize response for this study, the \textit{a priori} decision was made to implement the Tailored Design Method (TDM) designed by Dillman (2000) which has been shown to greatly increase survey responses. Subsequently and in accordance with the TDM, a random sample of the nonrespondents was contacted over the telephone and data obtained from the nonrespondents were compared with the data received from the respondents using both parametric (t-test for independent groups) and nonparametric tests (Mann–Whitney). No differences were found between nonrespondents and respondents and the findings of this study were decided as acceptable to generalize to the target population.

\textbf{Findings}

Information collected to determine the perceptions of occupational education officers concerning the willingness to participate and the most effective method(s) of delivering professional development activities to part-time career and technical program faculty is presented in Table 1. The data pertaining to part-time faculty members' willingness to participate in professional development activities showed that a high of 44\% \((n=20)\) of the respondents felt that part-time faculty would be willing to participate in at least one professional development activity per semester or quarter. The next notable response of 41\% \((n=19)\) indicated that part-time faculty would be willing to participate in \textit{only one} professional development activity per academic year. The remaining three items of willingness to participate in more than one activity per semester or quarter \(7\% \,(n=3)\), not willing to participate in any professional development activity \(4\% \,(n=2)\) and, part-time faculty are required to participate when activities are offered \(4\% \,(n=2)\) were chosen by only 15\% of the respondents.

Survey participants were asked to signify how part-time faculty members would most like to receive information that would address their professional development needs. Responses for the five items were: (a) seminar discussions at 79\% \((n=37)\), (b) group classroom activities with 62\% \((n=29)\) indicating this choice, (c) computer assisted instruction or multi-media interaction at 55\% \((n=26)\), (d) 30\% \((n=14)\) felt that self-study materials such as pre-recorded learning modules or units would be preferable and, (e) 4\% \((n=2)\) of those surveyed indicated that lecture format with outside reading/homework would be most desirable. Occupational education officers' perceptions of the time(s) which part-time faculty would prefer to attend a professional development activity showed that 68\% \((n=32)\) felt that evening/night would be the best time followed by late afternoon at 45\% \((n=21)\), during a regular weekday at 34\% \((n=34)\), and finally 23\% \((n=11)\) responded that weekends would be best. Regarding the time of year which part-time faculty would prefer to attend a professional development activity, over half \(53\% \,(n=25)\) of the respondents indicated that Fall would be the best time of year for them to participate while 15\% \((n=7)\) selected Spring as the right time and lastly 2\% \((n=1)\) stated that either Summer or Winter would be preferred. Thirteen \(28\%\) of respondents expressed their perception that the time of year is not an important factor in determining if part-time faculty would attend a professional development activity.

\begin{table}[h]
\centering
\caption{Perceptions of Part-Time Faculty Professional Development Delivery Preferences}
\end{table}
Perceptions of part-time faculty members willingness to participate in professional development activities

They would be willing to participate in at least one activity per semester or quarter 20 44
They would be willing to participate in one professional development activity per academic year only 19 41
They would be willing participate in more than one activity per semester or quarter 3 7
They would **not** be willing to participate in any professional development activities 2 4
Part-time faculty are **required** to participate in professional development activities when offered

Perceptions of how part-time faculty members would most like to learn

Seminar discussions 37 79
Group classroom activities 29 62
Computer assisted instruction or multi-media interaction 26 55
Self-study materials such as pre-recorded learning modules or units 14 30
Lecture format with outside reading/homework 2 4

Perceptions of the time(s) which part-time faculty would prefer to attend a professional development activity

Evening/night 32 68
Late afternoon 21 45
During a regular workday (i.e., 8 a.m. - 5 p.m) 16 34
Weekend 11 23
Not important 0 0

Perception of the time of year part-time faculty would prefer to attend a professional development activity

Fall 25 53
Not important 13 28
Spring 7 15
Summer 1 2
Winter 1 2

Distance/travel time is an important factor the decision to participate in a professional development activity

Yes 43 92
No 4 8

Manner in which part-time faculty professional development needs are met in respondent's college

School staff at the program or division level & 41 & 87 \\
School staff at the institutional level & 25 & 53 \\
Needs not currently being met & 11 & 23 \\
Self-study programs & 6 & 13 \\
Teacher educators from college(s)/university(s) & 5 & 11 \\
Instructors from private sources & 3 & 6 \\
Not aware of any needs & 1 & 2 \\

| Perceived part-time faculty member compensation for participating in professional development activities<sup>b</sup> | 32 & 68 \\
| Per diem and travel expenses | 23 & 49 \\
| Personal growth | 19 & 40 \\
| Clock hour credit toward certification/licensure | 16 & 34 \\
| Incentive pay raise | 12 & 26 \\
| College credit | 7 & 15 \\

| Perceived interference with part-time faculty member participation in professional development activities<sup>b</sup> | 47 & 100 \\
| Other job commitments | 34 & 72 \\
| Distance to travel | 32 & 68 \\
| Remuneration issues | 25 & 53 \\
| Personal motivation | 17 & 36 \\

<sup>a</sup>Respondents were instructed to choose only one  
<sup>b</sup>Respondents were instructed to choose all that apply  
<sup>*</sup>Frequencies not totaling 47 are due to missing data

Ninety-two percent (<i>n</i>=43) of those who responded to the survey signified that distance and/or time of travel was an important factor in the decision of part-time faculty to participate in a professional development activity while the remaining four (8%) respondents indicated that this factor was not important. Concerning the information gathered to determine the manner in which part-time faculty professional development needs have been met by a respondent's community college, 87% (<i>n</i>=41) stipulated that such activities are delivered by school staff at the program or division level. Over half (53%, <i>n</i>=25) indicated that professional development is provided by school staff at the institutional level while almost one-quarter (23%, <i>n</i>=11) of the respondents surveyed felt that the part-time faculty professional development needs were not currently being met by their institution. Less than 15 of the respondents revealed that professional development needs were met via self-study programs (13%, <i>n</i>=6), teacher educators from college(s)/university(s) (11%, <i>n</i>=5) and, instructors from private sources (6%, <i>n</i>=3). One respondent (2%) indicated that they were not aware that any part-time faculty professional development needs existed in their particular situation. An "other" response item with space for an open ended statement was supplied with the other seven possible responses for this question on the questionnaire. Only one survey participant selected and expressed additional thoughts concerning how part-time faculty professional development needs were being met by their
colleges. The person stated that, "Outside seminars funded by the college" was used by their institution.

Responses from the study participants concerning how part-time faculty should be compensated for participating in professional development activities is organized as follows in descending order of response rate: (a) 68% \((n=32)\) perceived that per diem and travel expenses would be adequate compensation, (b) 49% \((n=23)\) said part-time faculty should participate for personal growth, (c) 19 respondents or 40% stated that clock hour credit toward certification and/or licensure is appropriate remuneration, (d) incentive pay raise was selected by 34% \((n=16)\), (e) 26% \((n=12)\) indicated that college credit should be given to participants and finally, (f) 15% \((n=7)\) of the respondents signified part-time faculty should receive paid time-off for participating in professional development activities. Lastly, the information concerning the perceptions of potential factors which may interfere with a part-time faculty member's participation in professional development activities showed that all of the respondents \((100\%, n=47)\) expressed the opinion that other job commitments intervene with a part-time faculty member's ability to participate, while almost three-quarters \((72\%, n=34)\) of the survey respondents stated that travel distance may interfere. The factor of remuneration or compensation was selected by 68% \((n=32)\) of those surveyed, 53% \((n=25)\) chose personal motivation as a barrier to participation, and 36% \((n=17)\) of the respondents selected the item of experience or inexperience as a teacher to have possible intervening effects. An "other" response item with space for an open ended statement provided with this question on the survey instrument was selected by only one respondent who stated, "Attitude of full-time faculty and interference with part-time participation" was an additional factor which may affect a part-time faculty member's participation in professional development activities.

Conclusions and Discussion

Regarding the frequency and methods of delivering professional development to part-time faculty, respondents felt that part-time faculty would be willing to participate in at least one activity per quarter or semester. Willingness to participate in one professional development activity per academic year was the second most frequent choice of respondents. When a professional development opportunity is provided, occupational education officers perceived that part-time faculty would most like to learn using seminar discussions and group classroom activities. The response rates for these two items suggest that respondents perceive that part-time faculty would most like to learn in some type of group formatted activity.

Delivery of professional development activities for part-time faculty were perceived to be best scheduled to occur in the evening or at night, during the Fall of the year, and in consideration of the distance and travel times which part-time faculty may encounter when choosing to participate. An evening/night format was revealed as the best time of day to provide part-time professional development activities while late afternoon, during the hours of 8:00 a.m. - 5:00 p.m. of a regular workday and, the weekend were chosen by less than one-half of the respondents. These response levels make intuitive sense as these latter times would most likely be less popular or even inaccessible for many part-time faculty. For example, commitments of full-time regular employment, family care, or other responsibilities may either require or obligate part-time faculty to only be available during the evening/night. A conflict
may also arise with some evenings and/or nights as it is at these times when many of the part-time faculty may actually teach their courses. All of the respondents felt that the time of delivery was an important facet of providing part-time faculty professional development as no one selected the "not important" category for this question.

The fall was chosen as the best time of year for providing professional development activities as that is when most academic years begin, the staff are generally most motivated, enrollments are highest, and both returning as well as new part-time faculty members have just started their teaching responsibilities. School staff at the program or division level was most often delivering the part-time professional development activities in respondents’ community colleges while just over one-half of the colleges were utilizing school staff at the institutional level. Self-study programs, teacher educators from colleges/universities, and instructors from private sources were used only minimally. Certainly it would make sense both financially and organizationally to provide professional development for part-time and full-time faculty as well as staff members using persons at the program, division, or institutional level. Both intrinsic and extrinsic rewards are important incentives to encourage part-time faculty to attend professional development activities which may help reduce or ameliorate such intervening factors as other job commitments, distance to travel, remuneration, and personal motivation. Concerning the types of compensation part-time faculty members were perceived to want for participating in professional development activities, per diem and travel expenses was selected by two-thirds of the respondents with just under one-half signifying that personal growth should be the reward. Clock hour credit toward certification/licensure, incentive pay raise, and college credit as remuneration were chosen by at least one-quarter of the survey participants. So, similar to the findings provided by Hoerner, Clowes, and Impara (1991), the rewards for involvement in professional development activities can be either intrinsic or extrinsic. The extrinsic reward of providing per diem and travel expenses probably is remuneration which many full-time faculty, and possibly administration and staff members, consider as the minimum compensation for their participation in professional development activities and as such should also be provided to part-time faculty.

All of the respondents expressed that other job commitments would be a factor which might interfere with part-time faculty member participation in a professional development activity. Distance to travel and remuneration issues were also perceived as barriers to participation. Concerning the opinion that distance of travel may interfere with a part-time faculty member’s ability or choice to participate, this finding is corroborated by the previously discussed item in which respondents indicated that distance and/or travel time was an important factor in the decision whether or not to take part in a professional development activity. It seems that the distance and/or time of travel confronted by a part-time faculty member may not only influence their initial decision on whether or not to participate in a professional development activity, but may also actually prevent them from attending even though they have chosen to participate. For example, weather conditions, traffic, excessive fuel use, vehicle undependability, long hours on the road and late return times, etc., may prohibit part-time faculty from taking part in professional development activities even though they would like to attend. This is similar to the conclusions of McKenzie (1996) where "ease of attendance" was one factor which determined whether or not part-time faculty would attend a professional development activity. The opinion that personal motivation of part-time faculty may interfere with their
decision to participate was held by over one-half of the respondents and lastly, just over one-third gave responses that a part-time faculty member's experience or inexperience as a teacher may influence their decision to participate. This perhaps relates to an either real or imagined fear that, during or because of their participation in a professional development activity, their part-time peers or their full-time counterparts may judge them critically for their apparent lack of teaching experience. In a like manner, the research conducted by Kelly (1991) discovered that part-time faculty felt embarrassed to seek out help from their division dean because they believed since they were principally hired to teach, then they should already know how to teach.

Implications and Recommendations

Providing at least one part-time faculty professional development activity per academic year or, if possible, once per semester or quarter, should be the minimum goal of community colleges. Providing a part-time faculty professional development activity each quarter or semester would far better demonstrate a college's commitment to striving to improve the quality of part-time faculty, student outcomes, and institutional effectiveness. Providing professional development activities in a collective format would likely be more cost effective as well as facilitate beneficial interaction among part-time and perhaps even full-time faculty. Practices such as one-shot lectures with little or no opportunities to reflect on the information were found to be less desirable professional development practices. Computer assisted instruction or multimedia interaction as the preferred method of learning being chosen by more than one-half of the respondents may give, intuitively at least, an indication that the delivery of professional development information could also be done using Internet connections, web-based delivery methods, or even interactive CD ROM techniques.

Regarding what resources are used to teach professional development activities, community colleges should consider other sources outside of their own institution depending on the topic and the level of expertise required. For instance, teacher educators from other colleges and/or universities may be better able to provide professional development when addressing such topics as student learning styles, evaluation, or other pedagogical issues. Additionally, business and industry often have the latest information concerning workforce trends, career and technical requirements, and new innovations. They are often times the best and only source of current information pertaining to the demand for technical competency in a faculty members' area of teaching, especially in fields heavily dependent on technology.

The reality of tight budgets and other fiduciary constraints likely dictates that institutions will continue to rely on intrinsic rewards to promote and maintain participation in both full and part-time faculty professional development programs and activities. Individual faculty member commitment to improve their knowledge and skills as well as dedication to their specific discipline or the profession of teaching may be the only reward in many circumstances similar to what Watters and Weeks (1999) have stated as the notion of personal and professional development in symbiotic relationship with the university.

Overall, the part-time professional development activities currently provided by community colleges must be reviewed and either adapted, modified, or completely re-designed to include the methods of delivery recommendations developed by this research. Since distance
and time of travel are considered barriers to both the decision to participate as well as interventions to actually attending professional development opportunities, community colleges should consider strategies to lessen this barrier/intervention. Providing professional development activities which are repeated within a semester or quarter, developing technology based distance education materials and, off-campus or "satellite" delivery of professional development would be some viable considerations to address the issue of time and distance of travel. Staff at the school or division level should continue to be utilized in delivering professional development activities with some additional consideration of how outside expertise may enrich the professional development of both part and full-time faculty. Both intrinsic and extrinsic reward systems should be assessed for their effectiveness in providing incentives for part-time faculty attendance at professional development activities and, a faculty member's commitment to their discipline and the teaching profession should be nurtured as well as ensuring that cost recovery mechanisms are in place to reduce or eliminate personal "out of pocket" expenses for faculty. The design and delivery of professional development programs and activities should also take into consideration the part-time faculty characteristics of other job commitments, travel distance, compensation, personal motivation, and level of teaching experience. Finally, community colleges should evaluate the findings of this research concerning the appropriate methods of delivery of professional development activities to discover if similar circumstances exist in their individual situations which merit the development of delivery mechanisms to both ameliorate the barriers and/or facilitate incentives.

REFERENCES


