Status of Online Professional Development in Educational Service Agencies of the United States

An Exploratory Study

By:

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Tables and Figures

Executive Summary

An evolution in providing teachers online professional development (pd) is occurring in this era of educational improvement and accountability, with numerous models and methods under exploration. New knowledge in social network theory and educational change also hold promise for rapidly expanding online professional development opportunities for teachers.

Research about online professional development for educators is evolving and much more investigation is necessary to guide future advancements in offerings and delivery practices. Generally, research thus far conducted finds that high-quality professional development and online professional development can have positive effects on teacher knowledge and can influence instructional practices.

The purpose of this exploratory study was to determine the status of online professional development in educational service agencies (ESAs) in the United States. Providing professional development for teachers is one of the most prominent functions of ESAs. Yet, little is known about how ESAs are responding to the evolving online professional development movement. Consequently, a national survey was conducted in collaboration with Dr. Brian Talbott, Executive Director of the Association of Educational Service Agencies (AESA), and with financial support from the American Institutes for Research (AIR) as part of AIR's work for the Intel Teach program.

Methods

The population for the study included all chief executive officers (CEOs) of ESAs in an e-mail listing compiled and maintained by the Association of Educational Service Agencies. A total of 553 ESAs located across the country were included in the listing. After a review of the literature, the researcher developed a survey instrument with the assistance of Dr. Brain Talbott, AESA executive director; Dr. E. Robert Stephens, nationally prominent researcher of ESAs; and Dr. Pamela Jacobs, Director of the Intel® Teach National Training Agency.

The web-based survey instrument included five parts: Part A. Demographics, Part B. Online PD Offerings, Part C. Delivery of Online PD for Teachers, Part D. Evaluation of Online PD, and Part E. Future Plans. The survey instrument was pilot tested by the CEO or professional development coordinator of an ESA in the states of Kentucky, Pennsylvania, and Washington. Based on the pilot test, slight revisions were made in the survey, primarily to include or exclude types of online technology platforms and supportive technology tools. Also, survey instructions were clarified for potential respondents in an ESA that did not offer or make online pd available to teachers.

On February 24, 2011 Dr. Talbott sent an e-mail to the 553 names of CEOs in the AESA data base announcing the survey and inviting completion within 10 days. The Zoomerang survey closed on March 23, 2011. Only one person could respond on behalf of the ESA: the CEO, the professional development coordinator, or an appropriate person designated by the CEO. Follow-up efforts by Dr. Talbott and the researcher to encourage

survey completion by ESAs resulted in 226 usable responses, or a response rate of 42.4 percent. A Windows version of the Statistical Package for the Social Sciences (SPSS) was used to import the Excel data file from Zoomerang and analyze the data.

Findings: ESA Offering Online PD

ESAs across the U.S. are making online professional development opportunities available to educators. This section highlights a few of the many important findings for ESAs who offered or made available online pd during the last three years.

Demographics

Survey respondents who offered online pd (n=160; 70.8%) were located in 34 states. The states with the greatest percentage of respondents include Michigan (13.1%), Pennsylvania (10.6%), Ohio (8.1%), Illinois (7.5%), Minnesota (5%), and Nebraska (5%). Among the schools that respondents indicate the ESA serves, almost three-fourths (71.9%) of ESAs serve non-public schools and over half (55%) serve charter schools.

Online PD Offerings

Almost all (96.9%) ESAs that offer online pd target public school teachers as the primary audience. Almost two-thirds (64.4%) also target public school administrators. Less than half (43%) of the ESAs target central office administrators and less than three percent target parents of students in public schools.

Types of Teacher Online PD

Type of online pd offered by the greatest percentage (70%) of ESAs is "online courses approved for continuing professional education and/or re-certification credit." Table B reveals the type of online pd offered or made available by ESAs. More than two-thirds (76.5%) offer "online webinars on educational topics." Half offer "online access to pedagogical and/ or subject matter content," with slightly less than half of the ESAs offering "Online courses offered for university graduate credit" (48.8%) and "Online access to videos of best teaching practices" (48.8%). Only about 16 percent of the ESAs offer an "online mentor teacher program for beginning teachers" or "online instructional coach for teachers."

Source of Online PD

Almost two-thirds (62.7%) of 158 respondents indicate ESA staff designs the content of online pd offerings (see Figure A). Half of 148 ESA respondents indicate they use pd content that is obtained by the ESA at no cost. Slightly more than one-third (38.7%) of 150 respondents reveal the ESA purchases online content. Less than one-fourth (23.2%) of 155 respondents indicate the ESA does not directly offer online pd but negotiates with a third party to provide the pd to teachers and/or administrators.

Teacher Participation Incentives

Based on combined ratings of "great extent" and "very great extent," the incentives selected by the highest percentage of respondents as most effective for increasing teacher participation in online pd were

➢ "Teacher receives online pd that directly assists the teacher in his/her classroom practice" (67.3%)

➢ "Teacher receives free continuing education credits (CEUs) or professional development hours that count toward license/certification renewal" (53.6%)

➢ "Teacher receives opportunity to network with role-alike peer teachers in online pd" (46.3%)

➢ "Teacher receives free materials related to online pd for use in classroom (35.1%).

Figure A. How ESA Obtains Online PD Content
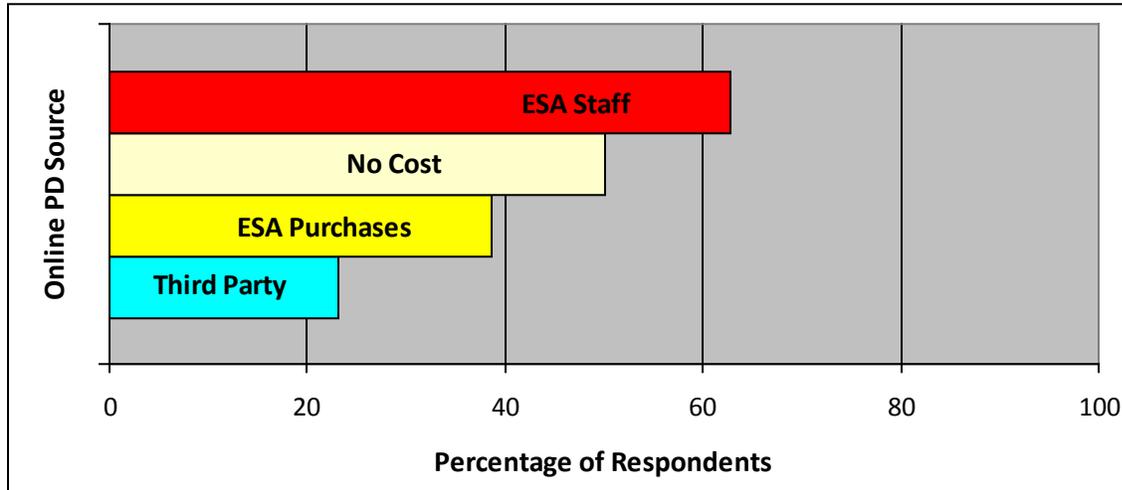
Delivery of Teacher Online PD

Two-thirds of the respondents indicate an online blended or hybrid approach is the most common delivery method of teacher online pd. Almost equal percentages of ESAs, more than half respectively, also indicate using online asynchronous that is facilitated and online asynchronous that is not facilitated.

Slightly more than one in ten ESAs use online synchronous with face-to-face interaction only.

Facilitator Acquisition

More than half of ESAs use a facilitator in the delivery of online pd. Two-thirds (66.9%) of the 160 ESAs train their own personnel as the facilitator (see Figure B).

Technology Platforms, Systems and Support Tools

Of the 160 respondents, half indicate that Moodle is used most often as the technology platform; slightly more than one-fifth (22.5%)

of the ESAs use Blackboard. Fifty-four, or one-third (33.8%) indicate using Skype as the technology tool to support online pd, followed by Elluminate (26.3%) and Adobe Connect (21.3%).

Funding Teacher Online PD

Based on the greatest percentage of the 160 respondents who indicated a funding source, ESAs fund teacher online pd offerings most often in the following ways:

➢ Individual teacher pays full fee for participation (41.9%)

➢ School district pays full fee for teacher participation (36.3%)

➢ ESA pays from operating funds and charges no fee for teacher participation (32.5%)

➢ Other entity pays full fee for teacher participation (e.g. state funding, federal grant, private business) (26.35)

Figure B. How ESA Routinely Acquires Facilitator for Online PD
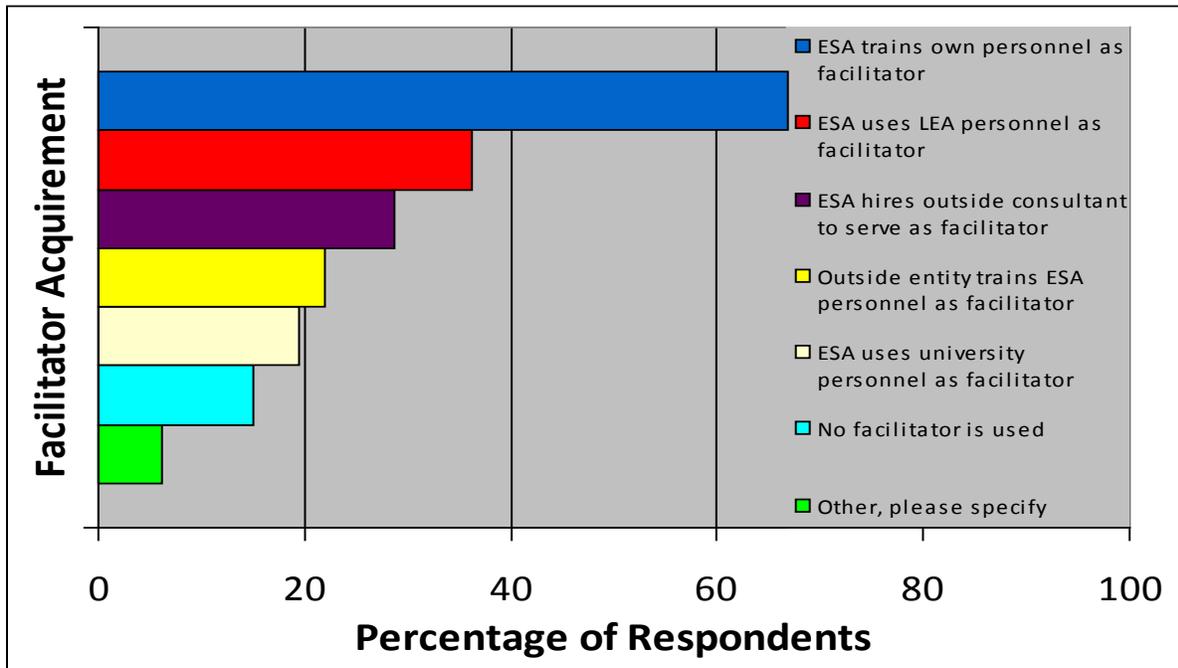
Evaluation of Online PD

Slightly more than half (54.4%) of the 160 ESAs use degree of participant satisfaction as one of the measures to evaluate effectiveness of online pd offerings; half also use level of participation as one of the measures. On a scale of 1 (low) to 10 (high), about one-fifth of 120 respondents rate their satisfaction with the quality of online pd opportunities currently offered or made available to teachers by the ESA as a 5; another fifth rate a 7.
The mean rating for the 120 respondents was 6.04 with a standard deviation of 1.84.

Barriers to Expanding Teacher Online PD

When combining "great extent" and "very great extent" ratings, "Attracting necessary funding" was selected by the greatest percentage of respondents (n=121; 62%) as a barrier to expanding online pd offerings for teachers, followed by "Overcoming teacher perceptions of no time to participate during school day" (n=119; 50.4%), and "Building

interest among teachers who want traditional pd (e.g., face-to-face workshop) (n=120; 49.2%).

Sustained Teacher Online PD

In addressing the issue of providing high quality pd that is embedded and "sustained" over a time period adequate for teachers to increase knowledge and skills, rather than simply being a one-shot event, 69 of the 160 respondents provided explanations. Five themes emerge from the analysis of comments: (1) direct follow-up assistance to participants, (2) technology applications, (3) extended time period, (4) teacher grouping, and (5) job-embedded improvements.

Offering sustained online pd for teachers is a great challenge for some ESAs, as one ESA respondent notes:

"This is a constant struggle, state initiatives change, and grant or federal funding used for the PD has specific guidelines on how to spend

funds. We would benefit from any great insight on how to do this with fidelity and with low cost to the ESA.''

ESA Plans

Of the 160 ESA respondents who offer online pd, 98.3 percent of the 118 who answered the question indicate the ESA plans to offer or continue offering online pd to teachers.

Approximately two-thirds (65.3%) of the 118 ESA do not have a formal process for identifying what online pd to offer. Of the 160 ESAs who offer online pd, 112 indicate the best way they learn about a new online pd opportunity that is eventually offered to teachers. Analysis of respondent comments reveals seven themes: (1) ESA staff, (2) district requests, (3) networking, (4) state initiatives, (5) vendor communications, (6) formal needs assessments, and (7) conference attendance.

Viable Business Models

In explaining the most viable business model or strategy the ESA has found to sustain online pd offerings, comments of respondents reflect no one business model exist. Based on respondent comments, five themes reflect the models in use by ESAs: nonexistent or evolving, district cost-savings, shared capacity building, grant funding, and entrepreneurial marketing.

Findings: ESAs Not Offering Online PD

This section of the summary highlights findings for the respondents in ESAs who did not offer or make available online pd during the last three years. Of the 226 respondents, 66, or 29.2 percent indicate

that the ESA did not offer or make available any type of online professional development (pd) in the last three years. Respondents represent ESAs located in 20 states. One fifth (21.2%) of the respondents represent ESAs in Massachusetts and New York. Of the 66 ESAs, four in ten (43.9%) serve non-public schools; four in ten (40.9%) indicate serving charter schools.

Future Plans

More than half (57.7%) of the 45 respondents in ESAs that did not offer online pd in the last three years plan to offer online pd to teachers in the future. Ten of the 45 respondents, or about one-fifth (22.2%), indicate the ESA has a process to follow if they decide to offer online pd in the future. Comments of several respondents in ESAs who did not offer online pd reveal the ESA is supportive of offering online pd to teachers. Examples of comments include:

➢ This is an area we need to move in

➢ I think they're necessary and a good way to preserve scarce resources

➢ We are working on it; online pd offers a timely nature of information

➢ We are currently looking at online PD for future opportunities

➢ We are in the initial stages of developing online pd to offer to our districts

➢ We are still in the baby-stages of offerings...we are not even sure of the questions to ask, but are looking at 'Moodle' as a possible place to start

Comments of some respondents also reveal issues or limitations of the ESA in offering

online pd for teachers that must be addressed, such as:

➢ Lack of stable connectivity with our districts is a very limiting factor. We do not have capacity to offer courses.

➢ We are a relatively small, rural ESA. Staff capacity to develop offerings is an issue.

➢ We need someone to manage any online PD we would offer.

➢ Many teachers aren't used to the technology.

➢ There are concerns about the delivery method and who is actually participating. It seems that any time discussion centers around online pd the general consensus is that participates still prefer face-to-face (pd).

➢ Our component districts have not yet indicated a need for it.

➢ We are not going to be looking into this until it is requested by our school districts.

Conclusions

The purpose of this exploratory study was to determine the status of online professional development (pd) in educational service agencies (ESAs) across the United States. The response rate of 42.4 percent from the universe of all CEOs in a database compiled and maintained by the Association of Educational Service Agencies (AESA) is among the highest ever achieved for a national web-based survey of ESAs. The researcher draws 12 conclusions regarding the status of online professional development (pd) in ESAs.

1. Although ESAs may offer online professional development opportunities to administrators, teachers in public schools, charter schools, and non-public schools are the primary audience for online professional development currently offered by ESAs in the U.S.

2. ESAs offer a large variety of online professional development opportunities for teachers, which predominantly include online courses approved for continuing professional education and/or re-certification credit, online webinars on various educational topics, and online access to pedagogical and/or subject matter content and videos of best teaching practices.

3. Generally, ESAs obtain online professional development content from a variety of sources. Important sources include content designed by staff or free from providers such as state departments of education, public broadcasting, or other ESAs. Generally, no one private provider is common among ESAs who purchase online pd offerings for teachers.

4. ESAs commonly use a variety of incentives to encourage teacher participation in online professional development, particularly those that are perceived of value for enhancing teacher classroom practices and renewing the teaching license or certification.

5. ESAs commonly use the "online blended or hybrid approach" in delivering online pd. ESAs show no preference currently for facilitated online asynchronous versus non-facilitated online asynchronous delivery methods. Generally, ESAs train their own personnel for the facilitator role.

6. Most often ESAs prefer Moodle as the

technology platform to offer online pd to school districts, used more than twice as often as Blackboard. Although ESAs may use a large variety of online technology tools to support online professional development offerings, common tools include Skype, Elluminate, and Adobe Connect.

7. Generally, ESAs use a large assortment of funding streams to make online professional development opportunities available. ESAs commonly fund online professional development opportunities by charging a participation fee that is paid in total or part by the teacher, the school district, or another entity (e.g. state funding, federal grant, private business). No one business model prevails in ESAs for supporting online pd offerings. More accurately, combinations of models may be at work in many ESAs, if a business model exists at all.

8. Generally, ESAs are somewhat satisfied with the online professional development opportunities they offer or make available for teachers. ESAs most typically rely on degree of participant satisfaction and level of participation as common evaluation measures.

9. ESAs face numerous barriers in expanding online professional development opportunities for teachers. Among the most common barriers are (1) attracting necessary funding, (2) overcoming teacher perceptions of no time to participate during school day, and (3) building interest among teachers who want traditional pd (e.g., face-to-face workshop).

10. Providing high quality online professional development that is embedded and "sustained" over a time period adequate for teachers to increase knowledge and skills is a major challenge for ESAs. Numerous strategies are used to address the issue, including (1)

direct follow-up assistance, (2) technology applications, (3) extended time period of online pd offering, (4) teacher grouping, and (5) online pd linked to job-embedded improvements.

11. ESAs that *provide online pd* generally view it as "the future" in offering teachers professional development, with many advantages over the traditional approaches. Comments of respondents indicate generally ESAs are in early stages in offering online pd and have numerous needs for capacity-building assistance to support this new ESA initiative, including how to identify, select and sustain quality online pd. Developing ESA personnel, networking with other ESAs, and forming partnerships are possible capacity-building practices.

12. ESAs that *did not provide online pd* in the last three years are generally supportive of online pd. Respondent comments indicate a major issue in numerous ESAs is limited organizational capacity to offer online pd. Lack of demand for online pd and inadequate teacher skills with technology may also be key issues.

Professional development of teachers is a hallmark of strategies and policies to change teaching practices in America's public schools and in other countries (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009; Jaquith, Mindich, Wei, & Darling-Hammond, 2010). An evolution in providing teachers online professional development is occurring in this era of educational improvement and accountability, with numerous models and methods under exploration (Dede, 2006). New knowledge in social network theory and educational change hold promise in rapidly expanding online professional development opportunities for teachers (Daly, 2010).

Online professional development (pd) for teachers could be part of the online learning for students that is sweeping across America. In the year 2000, roughly 45,000 K–12 students took an online course. In 2009, more than 3 million K–12 students did. Advocates of online learning proclaim its potential to transform America's education system by serving as the backbone of a system that offers more personalized learning approaches for all students (Horn & Staker, 2011). Researchers are beginning to explore the training needs and other issues of teachers who offer online learning opportunities for students (Dawley, Rice, & Hinck, 2010). For example, a report of the North American Council for Online Learning reveals the types of professional development necessary to implement successful virtual schooling and online learning initiatives (Davis & Rose, n.d.).

Research about online professional development for educators is evolving and much more investigation is necessary to guide future advancements in offerings and delivery practices. Generally, research finds that high-quality professional development and online professional development can have positive effects on teacher knowledge and can influence instructional practices (Carey, Kleiman, Russell, Venable, & Louie, 2008; Russell, Douglas, Kleiman, & Carey, 2009). Findings from four randomized trials on the effects of online professional development (OPD) on English and mathematics teachers and their students offer positive results. The researchers (O'Dwyer, Masters, Dash, DeKramer, Humez, & Russell, 2010) maintain:

> Collectively, the four trials provide strong evidence that participation in a coordinated series of three OPD workshops has positive effects on teachers' instructional practices and content knowledge. Across all four trials, larger changes in instructional practices occurred for teachers in the treatment group. In many cases, the effect of the OPD workshops on instructional practices was large. Across all four trials, larger changes in teacher content knowledge also occurred for teachers in the treatment group. In most cases, the size of the effect was medium or large....Each trial also provides evidence that participation in a coordinated set of three OPD workshops also has effects on students of the teachers in the workshops. Although these effects are smaller and occur less consistently across all the sub-domains targeted by the courses, in each trial, a statistically significant effect was found for at least one student measure. (p. 83)

After acknowledging shortcomings of the study, the researchers conclude that the set of four randomized trials provide a body of evidence revealing a series of online professional development courses that target specific student learning needs can have positive effects on teacher knowledge and instructional practices. Online professional development for teachers may be accelerated as school districts search for more cost conscious ways to help teachers improve instructional practices and student achievement (District Administration Custom Publishing Group, 2010). Research also is beginning to reveal predictors of teacher satisfaction with online professional development (Reeves & Pedulla, n.d.).

The purpose of this exploratory study was to determine the status of online professional development in educational service agencies (ESAs) in the United States. Providing professional development for teachers is one of the most prominent functions of ESAs (Stephens & Keane, 2005). Yet, little is known about how ESAs are responding to the evolving online professional development movement. Consequently, a national survey was conducted in collaboration with Dr. Brian Talbott, Executive Director of the Association of Educational Service Agencies (AESA), and with financial support from the American Institutes for Research (AIR) as part of AIR's grant work for the Intel Teach program.

Methods

The population for the study included all chief executive officers (CEOs) of ESAs in an e-mail listing compiled and maintained by the Association of Educational Service Agencies. A total of 554 ESAs located across the country were included in the listing. After a review of the literature, the researcher developed a survey instrument with the assistance of Dr. Brain Talbott, AESA executive director; Dr. E. Robert Stephens, nationally prominent researcher of ESAs; and Dr. Pamela Jacobs, Director of the Intel® Teach National Training Agency.

The survey instrument included five parts: Part A. Demographics, Part B. Online PD Offerings, Part C. Delivery of Online PD for Teachers, Part D. Evaluation of Online PD, and Part E. Future Plans. The instrument was converted into a web-based Zoomerang survey by Pamela Jacobs. The web version of the instrument was pilot tested by the CEO or professional development coordinator of an ESA in he states of Kentucky, Pennsylvania, and Washington. Based on the pilot test, slight revisions were made to the survey, primarily to include or exclude types of online technology platforms and supportive technology tools. Also, instructions were clarified for potential respondents in an ESA that did not offer or make online pd available to teachers (see Appendix for final survey).

On February 24, 2011 Dr. Talbott sent an e-mail to the 554 names of CEOs in the AESA data base announcing the survey and inviting completion of the survey within 10 days. On March 14, 2011, Dr. Talbott sent a follow-up e-mail thanking those that had responded and again asking non-respondents to complete the survey within the next 5 days. On March 14, 2011, the researcher also sent a follow-up e-mail to the director of the AESA state affiliate and/or AESA board member representing states with a low response rate to encourage them to request completion of the survey by ESAs in the state. Lastly, on March 17 through 20, 2011, the

researcher sent an e-mail to all CEOs of ESAs listed in the 2010 AESA Membership Directory and located in states with a low response rate to offer one last chance to respond to the survey. The Zoomerang survey closed on March 23, 2011.

A total of 226 usable surveys were received for a response rate of 40.8 percent. The researcher exported the survey data from the Zoomerang data base as an Excel file. The windows version of the Statistical Package for the Social Sciences (SPSS) was used to import the Excel data file and analyze the data.

Findings: ESAs Offering Online PD

Of the 226 survey respondents, 160 or 70.8%, indicate the ESA offers or makes available online professional development (pd). This section of the report first describes results for this population of respondents. Lastly, the demographic information and future plans are described for the ESAs that did not offer online pd in the last here years. (Note: Numbers in tables may not equal 100 due to rounding.)

Respondent Demographics

Survey respondents who offered online pd were located in 34 states. Table 1 shows the response by state. The states with the greatest percentage of respondents include Michigan (13.1%), Pennsylvania (10.6%), Ohio (8.1%), Illinois (7.5%), Minnesota (5%) and Nebraska (5%).

Table 1. Number and Percent of Respondents Offering Online PD by State

State	No.	Percent
Arizona	3	1.9
Arkansas	7	4.4
California	3	1.9
Colorado	4	2.5
Connecticut	2	1.3
Florida	1	.6
Georgia	5	3.1
Illinois	12	7.5
Indiana	4	2.5
Iowa	1	.6
Kansas	5	3.1
Kentucky	1	.6
Massachusetts	4	2.5
Michigan	21	13.1
Minnesota	8	5.0
Mississippi	1	.6
Missouri	1	.6

Table 1. Number and Percent of Respondents Offering Online PD by State (continued)

Montana	1	.6
Nebraska	8	5.0
New Jersey	1	.6
New Mexico	3	1.9
New York	3	1.9
North Carolina	1	.6
North Dakota	3	1.9
Ohio	13	8.1
Oklahoma	1	.6
Oregon	4	2.5
Pennsylvania	17	10.6
South Dakota	4	2.5
Texas	3	1.9
Utah	3	1.9
Washington	1	.6
West Virginia	6	3.8
Wisconsin	5	3.1
Total	160	100.0

Of the 160 responses, Figure 1 shows the chief executive officer (CEO) of the ESA comprises almost half (48.1%); the ESA director or coordinator of professional development comprises less than one-third (30.6). Other ESA personnel comprise about one-fifth (21.3%) of total respondents. Titles of "other" personnel include: Assistant Executive Director, Assistant Regional Superintendent, Assistant Superintendent, Assistant to Professional Learning, Coordinator of Digital Learning, Coordinator of School Improvement Services, County Superintendent, Deputy Director of Instructional Services, Deputy Superintendent, Director of Curriculum Services, Director of Education Services, Director of Teaching and Learning, Director of Instructional Services, Educational Technology Consultant, Executive Director, Executive Director of Teaching and Learning, Human Resources Supervisor, Manager Instructional Services, Regional Superintendent of Schools, School Improvement Specialist, Supervising Manager, and Supervisor of Human Resources.

Figure 1. Title of Respondents in ESAs Offering Online PD
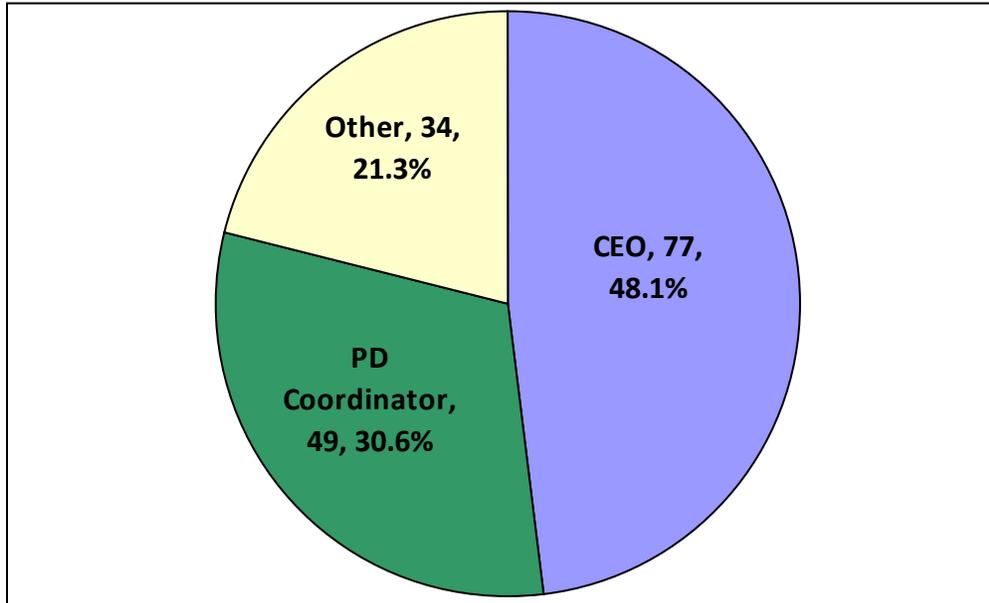
Approximately one third (33.6%) of the 160 respondents indicate the ESA have 11 or fewer member school districts; slightly less than one-third (31%) have between 12 and 20 member districts; about one-tenth (9.4%) have 21 to 29 member districts; about one-tenth (11.9%) have 31 to 40 member districts; about one-tenth (9.4%) have 41 to 60 member districts; and the remaining 7 ESAs (4.4%) have 62 to 94 member districts.

Of the 160 ESAs, almost three-fourths (71.9%) serve non-public schools and over half (55%) serve charter schools. Figure 2 shows approximately 10 percent of the ESAs have a total of 499 or fewer teachers employed in member districts. Approximately one- fourth (26.9%) of the ESAs have between 1,001 and 2,500 total teachers employed in their districts, about the same percentage of ESAs that have 2,500 to 5,000 total teachers employed in member districts (see Figure 2).

Figure 2. Total Teachers Employed in Member Districts of ESAs Offering Online PD
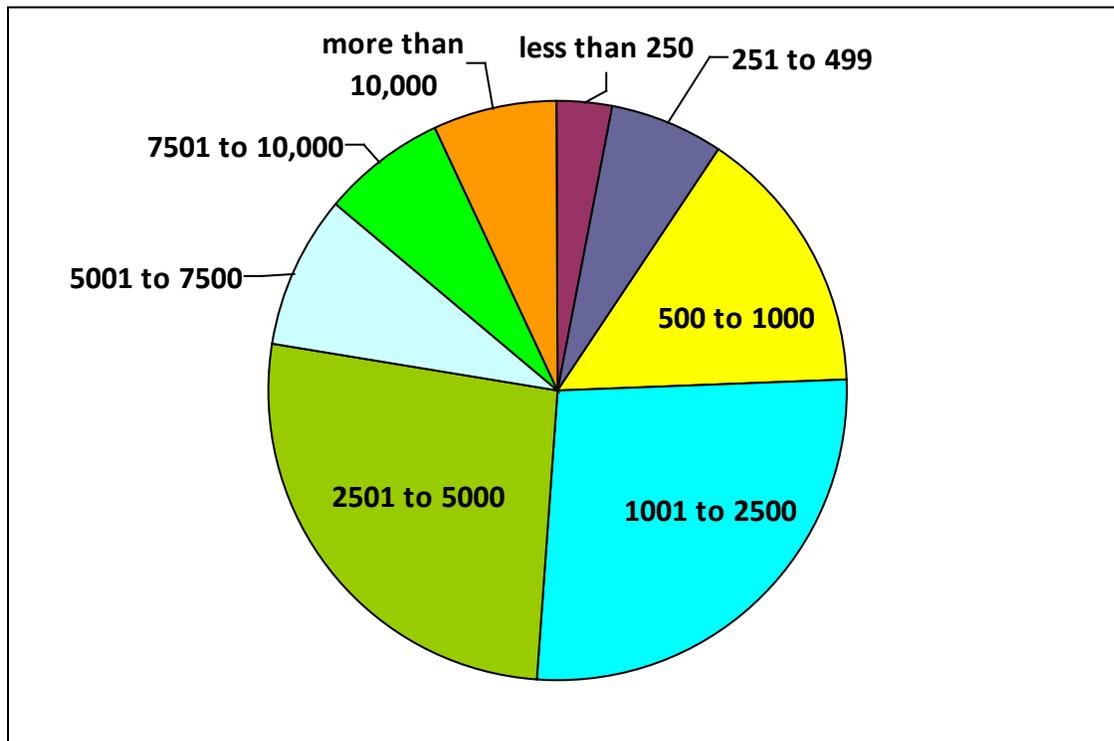
Online PD Offerings

Part B of the survey asked respondents to answer questions about the primary target audience of online pd offered or made available by the ESA, types of online professional development, how the ESA obtains online pd development content, and incentives for increasing teacher participation in online pd.

Almost all (96.9%) ESAs that offer online pd target public school teachers as the primary audience (see Table 2). Almost two-thirds (64.4%) also target public school administrators. Less than half (43%) of the ESAs target central office administrators and less than three percent target parents of students in public schools. Other audiences that ESAs target with online pd include: internal ESA staff, school board members, classified employees (e.g., non-instructional staff or service personnel of districts), independent contractor service providers, para-educators and paraprofessionals, private and parochial school teachers and administrators, special education providers, substitute teachers, and students.

Table 2. Target Audience of Online PD in ESAs Offering Online PD

Audience	No.	Percent
Public school teachers	155	96.9
Public school administrators	103	64.4
Public school district central office administrators	69	43.1
Parents of public school students in ESA member school districts	4	2.5
Other	21	13.1

Types of Teacher Online PD

Type of online pd offered by the greatest percentage (70%) of ESAs is "online courses approved for continuing professional education and/or re- certification credit." Table 3 reveals the type of online pd offered or made available by ESAs. More than two-thirds (76.5%) offer "online webinars on educational topics." Half offer "online access to pedagogical and/or subject matter content," with slightly less than half of the ESAs offering "Online courses offered for university graduate credit" (48.8%) and "Online access to videos of best teaching practices" (48.8%). Only about 16 percent of the ESAs offer an "online mentor teacher program for beginning teachers" or "online instructional coach for teachers."

Among the "other" topics that an ESA may offer online pd according to respondents is administrative videos, business areas, Blood Borne Pathogens, Legal requirements (e.g., harassment, legal mandated requirements), required human resource trainings (e.g., FERPA, reporting abuse), and technology standards. Several respondents indicate the "other" topics are delivered using a blended approach. For example, one respondent notes: "Majority of these offerings have been "blended" delivery, not wholly online."

Table 3. Types of Online PD Offered or Made Available by ESAs

Type	No.	Percent
Online courses approved for continuing professional education and/or re-certification credit	112	70
Online webinars on educational topics	108	67.5
Online access to pedagogical and/or subject matter content	80	50
Online courses offered for university graduate credit	78	48.8
Online access to videos of best teaching practices	78	48.8
Online learning community for a teachers' network (e.g., middle school math teachers)	53	33.1
Online semester or year-long facilitated study group of teachers	34	21.3

Table 3. Types of Online PD Offered or Made Available by ESAs (continued)

Online courses as part of Master's or other advanced degree program	29	18.1
Online mentor teacher program for beginning teachers	25	15.6
Online instructional coach for teachers	24	15
Other, please specify	14	8.7

Online PD Sources

Each respondent was asked to indicate where the ESA obtains online professional development content. Almost two-thirds (62.7%) of 158 respondents indicate ESA staff designs the online pd content (see Figure 3). Half of 148 ESA respondents indicate they use pd content that is obtained by the ESA at no cost. Slightly more than one-third (38.7%) of 150 respondents reveal the ESA purchases online content. Less than one-fourth (23.2%) of 155 respondents indicate the ESA does not directly offer online pd but negotiates with a third party to provide the pd to teachers and/or administrators.

Figure 3. How ESA Obtains Online PD Content
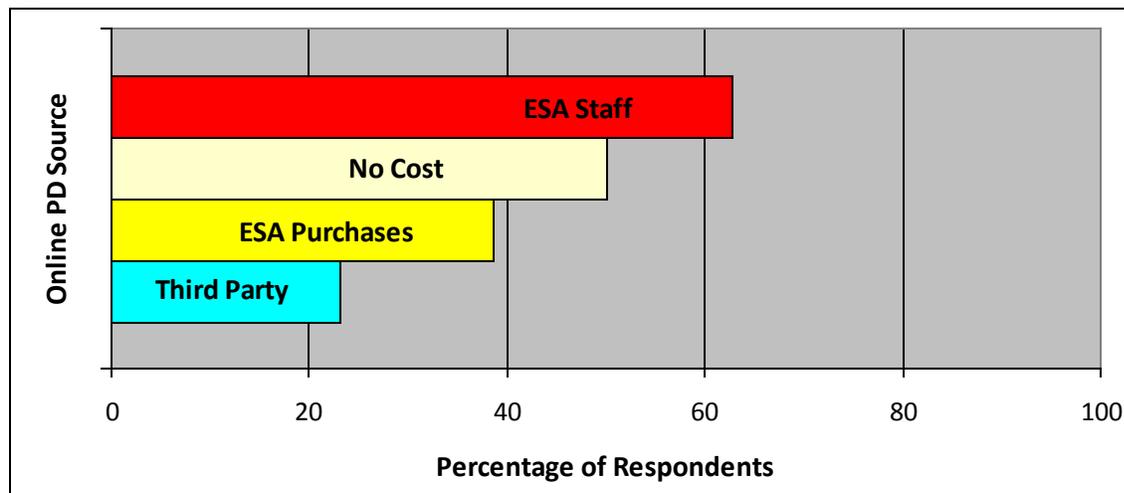
If the ESA purchased online pd content, each respondent was asked to list the name(s) of the provider(s). Respondents indicate providers include: ASCD, Aventa Learning Florida Virtual E 20-20, Direct Step ASCD, Discovery Education Streaming Learn360, E-reads Lincoln Interactive, E2020, Editure and ASCD, Educational Impact, Education To Go (part of Cengage Learning), ESeminars, Florida Virtual, ParaEducator, and the Illinois Principals Association.

Additional online providers include: Illinois Virtual School, Intel eNet Colorado Learning on line, KIDS, Knowledge Delivery Systems Coastal Learning, Learn 360 and Aventa learning (for students), Learners Online, The Leadership and Learning Center, PD 360, Public SchoolWorks, Safe Schools.com, School Improvement Network, McREL, SREB, and VLINC ad Blended Schools. Two ESA respondents indicate purchasing online pd from universities. One ESA

respondent notes: "PD courses are purchased from other ESAs and then adapted to our own needs."

Each respondent who indicated the ESA uses pd content that is provided at no cost to the ESA was also asked to list name(s) of the provider(s). Several respondents indicate the ESA obtains the online pd from the state department of education, state board of education or other state agency (i.e., Arkansas, Illinois, Kansas, Michigan, Ohio, Oregon, and Pennsylvania). For example, one respondent notes: the Arkansas Department of Education has "4 million a year to push out online courses. Some of these are offered through the ESA's." Other "free" providers of online pd also include public broadcasting organizations such as Arkansas Educational Television Network (AETN) and Georgia Public Broadcasting. An ESA may also obtain the free online pd from other ESAs in the state. One respondent acknowledges obtaining the free online pd from NOVA; another indicates "PD 360 from State Office On Track."

About one-fourth (23.2%) of 155 respondents indicate that the ESA does not directly offer online pd but negotiates with a third party to provide the pd to teachers and/or administrators. Names of the third party providers include: colleges and universities, state departments of education, other ESAs, and vendors such as Education To Go (ed2go.com), Editure, EduPlanet, Kennedy Center of Performing Arts Partnership, and PD 360.

Respondents also could indicate "other" ways in which the ESA obtains online pd content. One respondent notes: "Continuing professional education course instructors create online courses or online materials. We pay the instructors a fee when the course runs, not for the online course itself." Another respondent explains: "We are very tech advanced and use devices at all levels. Today, for example, our Social Studies Curriculum Review Team, made up of constituent district teachers, is upgrading our no-line curriculum resource in this content, led by one of our ESA consultants." One respondent notes: "We use education professionals that have performed face-to-face pd on site. We pay them to build courses around specific requirements."

An ESA might also coordinate an offering with another ESA or link the offering to another host ESA web site. One ESA acquires content through "online courses developed by school districts."

Teacher Participation Incentives

Respondents were provided a list of incentives and asked: Based on experiences of your ESA in making online pd available to school districts, to *what extent are the following incentives effective* for increasing teacher participation in online pd? Table 4 shows the results. Caution should be used in interpreting the results, however, as some respondents indicated in clarifying comments that if the ESA had no experience with the incentive they selected the "not at all" rating choice.

Based on a combined rating of "great extent" and "very great extent" the incentives selected by the highest percentage of respondents were "Teacher receives online pd that directly assists the teacher in his/her classroom practice" (67.3%), "Teacher receives free continuing education credits (CEUs) or professional development hours that count toward license/certification

renewal" (53.6%), "Teacher receives opportunity to network with role-alike peer teachers in online pd" (46.3%), and "Teacher receives free materials related to online pd for use in classroom (35.1%).

Table 4. ESA Incentives for Increasing Teacher Participation in Online PD

Incentive	Not at all	A little extent	Some extent	Great extent	Very great extent
Teacher receives online pd that directly assists the teacher in his/her classroom practice. (n=153)	0.0	6.5	26.1	49.0	18.3
Teacher receives a monetary stipend. (n=151)	44.4	17.9	17.9	9.3	10.6
Teacher receives free/reduced cost graduate college credit (non-degree). (n=150)	40.7	13.3	17.3	18.7	10.0
Teacher receives free graduate credit toward Master's degree. (n=148)	67.6	10.8	8.8	7.4	5.4
Teacher receives free continuing education credits (CEUs) or professional development hours that count toward license/certification renewal. (n=153)	16.3	10.5	19.6	30.1	23.5
Teacher receives free materials related to online pd for use in classroom. (n=151)	10.6	13.9	40.4	21.2	13.9
Teacher receives equipment and/or materials as a result of online pd. (n=146)	32.2	23.3	22.6	14.4	7.5
Teacher receives online coaching assistance to implement knowledge/skills acquired in online pd. (n=149)	12.1	22.1	36.2	24.2	5.4
Teacher receives help desk support services to access online pd opportunity. (n=150)	13.3	29.3	26.7	22.0	8.7
Teacher receives free personal laptop computer to participate in online pd from home or school. (n=148)	71.6	6.8	4.7	8.8	8.1
Teacher receives substitute teacher support to provide designated time for participation in online pd during regular school day. (n=146)	44.5	15.8	20.5	16.4	2.7
Teacher receives opportunity to network with role-alike peer teachers in online pd. (n=151)	9.3	16.6	27.8	31.1	15.2

Respondents could also provide "other" incentives that were not in the list of choices. One respondent notes the online offering gives teachers the "ability to participate in portions of pd asynchronously, thus, managing their own time and avoiding travel to a central site across wide geography." This travel and convenience issue seems reinforced in a comment by another respondent: "The majority of our online content is in our continuing professional education courses. Teachers self-select courses for participation. The online option is sometimes simply more convenient than conventional face-to-face instruction."

Another respondent reports an incentive is "local support in addition to online." One respondent explains that "teachers are required to have 60 hours of PD each year. These (online) hours can apply toward that requirement if approved by the district." Another incentive in one ESA is the "teacher receives degree granting graduate credit at a fair/reduced cost." Another respondent indicates the incentive is "the teacher pays for the PD." While one ESA notes the "teacher receives recognition for participating," another ESA respondent comments the incentive is the "teacher gets to remain employed." Lastly, a respondent indicates an incentive is the online pd offerings "work toward goals for growth set from the teacher's evaluation."

In an effort to more clearly identify the top incentives used by ESAs to increase teacher participation, each respondent was asked to indicate the top three incentives commonly offered to achieve adequate participation of teachers. Table 5 shows the list of incentives ranked by the highest percentage of respondents who selected the incentive as one of the top three commonly offered to achieve adequate teacher participation. The most common incentives used by ESAs are "Teacher receives online pd that directly assists the teacher in his /her classroom practice," and "Teacher receives free continuing education credits (CEUs) or professional development hours that count toward license/certification renewal." Providing the teacher with a free personal laptop computer to participate in online pd from home or school (teacher gets to keep computer) and free graduate credit toward a Master's degree are used least often by ESAs as incentives to achieve adequate teacher participation in online pd.

Table 5. Incentives Commonly Offered by ESA to Achieve Adequate Teacher Participation

Incentive	No.	Percent
Teacher receives online pd that directly assists the teacher in his/her classroom practice.	120	75
Teacher receives free continuing education credits (CEUs) or professional development hours that count toward license/certification renewal.	83	51.9
Teacher receives opportunity to network with role-alike peer teachers in online pd.	59	36.9
Teacher receives free/reduced cost graduate college credit (non-degree).	37	23.1
Teacher receives free materials related to online pd for use in classroom.	34	21.3
Teacher receives a monetary stipend.	27	16.9

Table 5. Incentives Commonly Offered by ESA to Achieve Adequate Teacher Participation (continued)

Teacher receives help desk support services to access online pd opportunity.	22	13.8
Teacher receives online coaching assistance to implement knowledge/skills acquired in online pd.	21	13.1
Teacher receives equipment and/or materials as a result of online pd.	15	9.4
Teacher receives substitute teacher support to provide designated time for participation in on-line pd during regular school day.	12	7.5
Other, please specify*	10	6.2
Teacher receives free personal laptop computer to participate in online pd from home or school (teacher gets to keep computer).	8	5
Teacher receives free graduate credit toward Master's degree.	5	3.1

* "Other" incentives listed by respondents as among the top three commonly used include learning is just-in-time, self-paced; mandatory training; personal classroom support; teacher receives degree-granting graduate credit at reduced cost; and teachers receive University credit at their cost.

Online Delivery of PD to Teachers

Respondents could also indicate how the ESA delivers or makes available online pd to teachers. Question directions explained asynchronous and synchronous types of interaction. Asynchronous interactions are online communications not limited to time or geography. E-mails, web-based bulletin boards, online forums, and chat rooms are all examples of asynchronous interactions. This type of interaction lets participants post messages in a forum where they are archived and can be retrieved and commented upon by other participants at any time. Synchronous communication is one that occurs in real time independent of location such as chat, instant messaging, or video conference. Synchronous communication may be done simply through text exchange or include an audio or video component. In synchronous communication, all participants are present at the same time although they do not necessarily have to be in the same location.

Table 6 reveals results for the five delivery options. A respondent could select all applicable delivery options offered by the ESA. Two-thirds of the respondents indicate an online blended or hybrid approach is the most common delivery method. Almost equal percentages of ESAs, more than half respectively, also indicate using online asynchronous that is facilitated and online asynchronous that is not facilitated. Slightly more than one in ten ESAs use online synchronous with face-to-face interaction only.

Table 6. How ESA Delivers or Makes Available Online PD to Teachers

Delivery Method	No.	Percent
Online blended or hybrid approach (includes online and physical location meetings)	105	65.6
Online asynchronous that is facilitated (interaction with a facilitator and with other teachers)	92	57.5
Online self-paced asynchronous (not facilitated)	90	56.3
Online synchronous with some face-to-face interaction with others (e.g., Skype)	67	41.9
Online synchronous with face-to-face interaction only	23	14.4
Other: compressed interactive video; live interactive video (face-to-face)	2	0.2

Facilitator Acquisition

More than half of ESAs uses a facilitator in the delivery of online pd. Respondents were asked to indicate how the ESA routinely acquires the facilitator for an online professional development offering to teachers. A respondent could mark all applicable choices. Figure 4 shows two-thirds (66.9%) of the ESAs trains its own personnel as the facilitator. Of the 160 respondents, slightly more than a third (36.3%) also indicates the ESA uses personnel from a local school district as the facilitator. Almost one-fifth (28.8%) of the 160 respondents indicate the ESA hires an outside consultant to serve as facilitator.

Five respondents also chose to provide a comment to explain "other" selection. Two respondents note the facilitator is acquired from the Regional Educational Media Center Association of the state. One respondent acquires the facilitator by "networking with other educational agencies." Another respondent indicates the "PD coordinator facilitates issues of accessing the online class and processing graduate credit." A fifth respondent notes the "third party providers supply facilitators."

Figure 4. How ESA Routinely Acquires Facilitator for Online PD
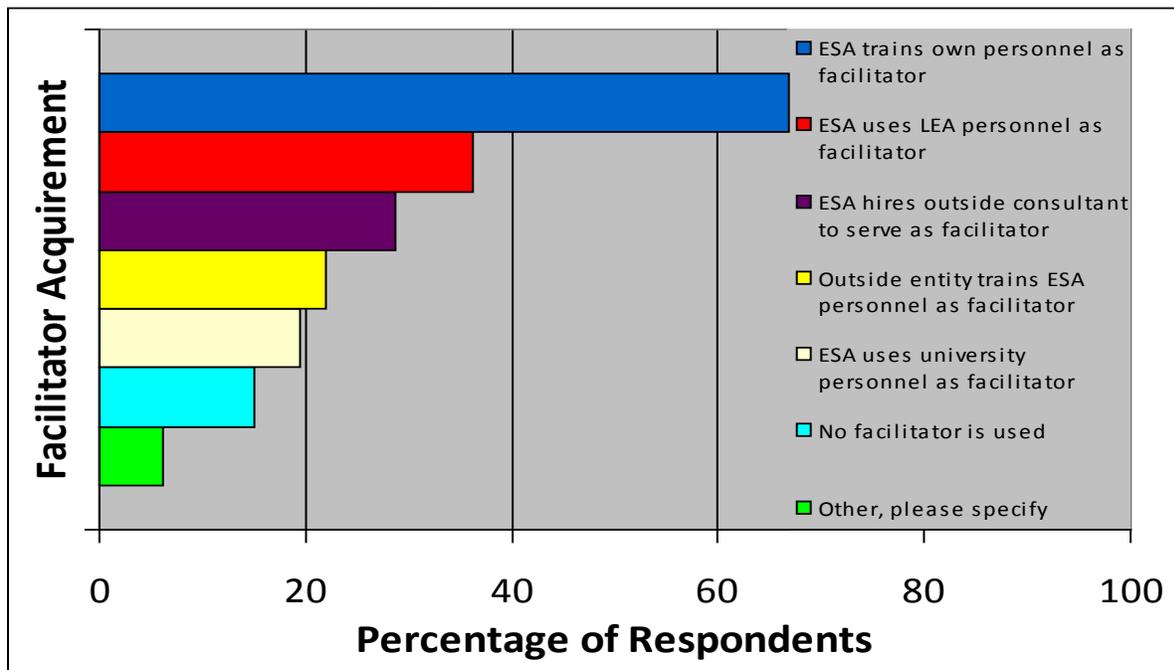
Technology Platforms and Learning Management Systems

On the survey respondents could reveal the specific technology platform(s) that the ESA uses most often to offer online pd to school districts. Respondents could select all applicable platforms from the list of 26 on the survey. Of the 160 respondents, half indicate that Moodle is used most often (see Table 7).

Slightly more than one-fifth (22.5%) of the ESAs use Blackboard as the platform for offering online pd. Nine ESAs (5.6%) use SharePointLMS; five (3.1%) use Angel; and four (2.5%) use Learn.com. Only one respondent indicates the ESA uses Desire2Learn (D2L), It's Learning, and Sclipo, respectively. One fifth of the respondents also indicate "other" platforms are used by the ESA to offer online pd. In addition to some state agency or state facilitated platforms, other platforms include Adobe Connect Pro, BrainHoney, AR IDEAS Portal, CourseMill, Droople, Elluminate, Learners Online , Skype, WebEx , and WebCT and teacher studio. One respondent also notes the ESA uses WAN, which is real time video conferancing and owned by member districts. Another respondent notes the online platform is developed "in house."

Table 7. Technology Platforms Used by ESA to Offer Online PD to School Districts

Platform	No.	Percent
Moodle	80	50.0
Angel	5	3.1
Blackboard	36	22.5
Desire2Learn (D2L)	1	.6
It's Learning	1	.6

Table 7. Technology Platforms Used by ESA to Offer Online PD to School Districts (continued)

Learn.com	4	2.5
Sclipo	1	.6
SharePointLMS	9	5.6
Other	33	20.6

Respondents were also asked to indicate the functions the learning management system (LMS) performs in the ESA online pd courses. Figure 5 reveals of the 160 respondents, about half (48.1%) indicate "course content." More than four in ten (44.4%) indicate "course tracking and progress." A smaller portion of respondents indicate the functions of "individual learner and aggregated reporting" (29.1%) and "learner data management" (21.9%) are performed by the learning management system. In specifying "other" functions, one respondent specifies the "the instructor much keep up with this data, and one notes a "third party provides" the functions. One respondent notes a function performed by the LMS is tracking "CEUs" and another respondent notes "online forums" as a function the LMS performs.

Figure 5. Functions of Learning Management Systems in ESAs Offering Online PD
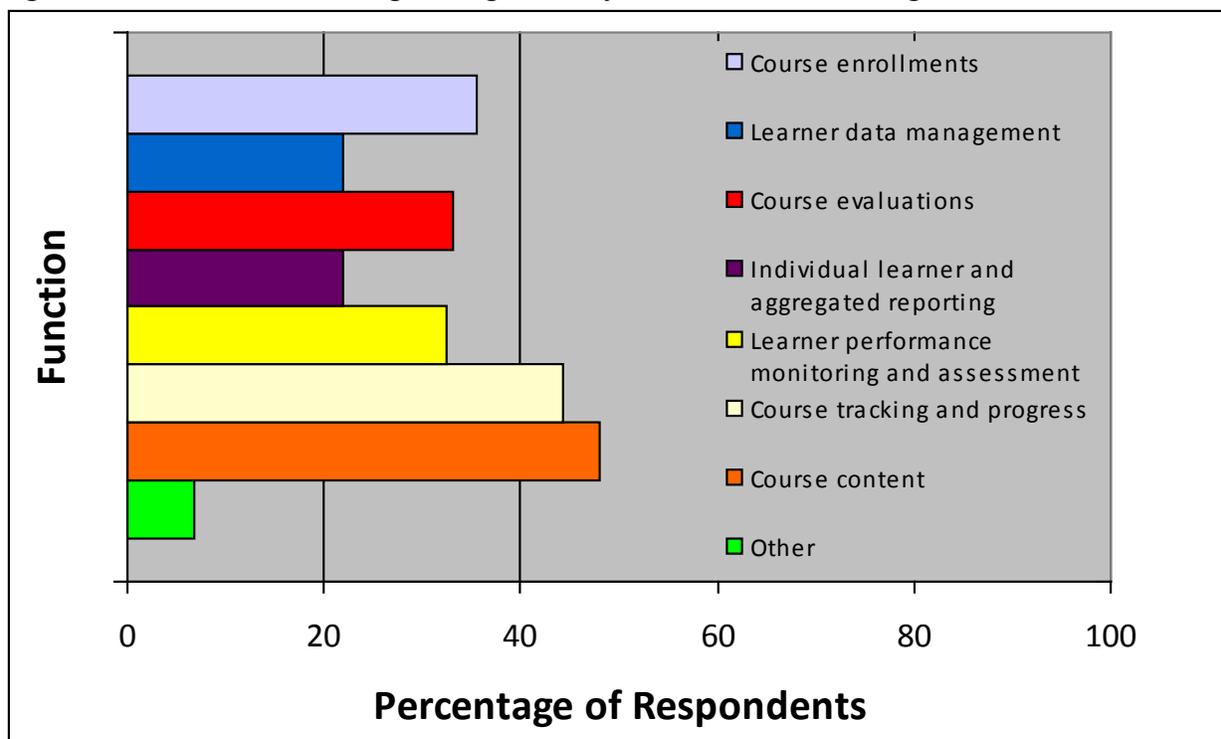
Technology Support Tools

Respondents could indicate the online technology tools that the ESA uses to support online pd. The respondent could select all applicable technology tools from the list of seven. Figure 6 shows the results. Fifty-four, or one-third (33.8%) of the 160 respondents indicate Skype as the technology tools in use by the ESA, followed by Elluminate (26.3%) and Adobe Connect

(21.3%). It should be noted that some ESA respondents also note a technology tool as a technology platform (e.g., Elluminate). "Other" technology tools specified by respondents include: Adobe flash player, compressed interactive video, Dropbox and wikispaces, video conferencing, Mixcraft, Moodle/Blackboard communication, Polycom, Tandberg IVC Systems, Vidyo, and WAN video conferencing.

Figure 6. Technology Tools ESA Uses to Support Online PD
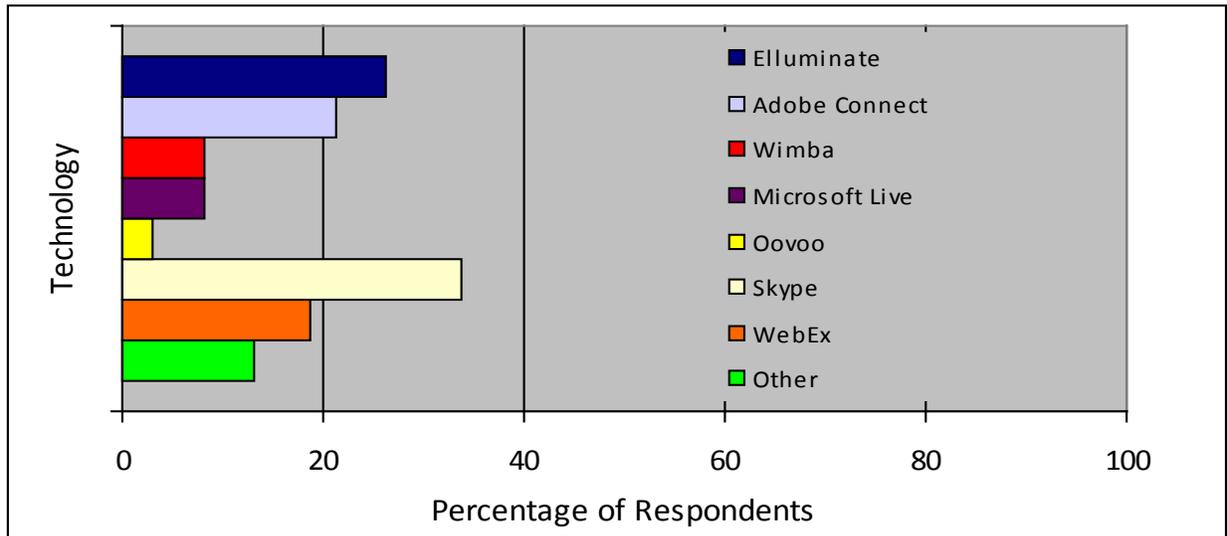
Funding Online PD

Because of the current difficult budget circumstances facing ESAs and school districts, a question on the survey asked the respondent to indicate how the ESA funds the online professional development opportunities provided teachers. Table 8 shows the list of choices, in order of greatest percentage response, by the 160 respondents. A respondent could select all applicable funding choices. Four funding sources are most prominent in ESAs: individual teacher pays full fee for participation (41.9%); school district pays full fee for teacher participation (36.3%); ESA pays from operating funds and charges no fee for teacher participation (32.5%); and other entity pays full fee for teacher participation (e.g. state funding, federal grant, private business) (26.35). In addition to comments citing grants and the teacher pays all or some of fees, "other" comments of respondents include: "currently exploring ESA negotiation of reduced price agreements (with vendor)," and "networking does not entail fees."

Table 8. How ESA Funds Online PD Opportunities Provided Teachers

Fund Source	No.	Percent
Individual teacher pays full fee for participation.	67	41.9
School district pays full fee for teacher participation.	58	36.3
ESA pays from operating funds and charges no fee for teacher participation.	52	32.5
Other entity pays full fee for teacher participation (e.g. state funding, federal grant, private business).	42	26.3
School district pays partial fee for teacher participation, with other part paid by another entity (e.g. state funding, federal grant, private business).	32	20
U.S. Department of Education or other federal grant source pays full fee for teacher participation.	29	18.1
School district pays partial fee for teacher participation, with other part paid by teacher.	28	17.5
ESA negotiates reduced price licensing agreement with vendor and makes set number of licenses available to member districts at no cost (district buys additional licenses if desired).	20	12.5
College or university pays partial fee or waives portion of teacher tuition.	11	6.9
Other, please specify	7	4.4
State or national professional education organization pays full fee for teacher participation.	5	3.1
Congressional earmark funds for certain programs and services contained in the legislation pays full cost of teacher participation costs.	1	0.6

Evaluation of Online PD

A question regarding online delivery of pd asked the respondents to indicate how the ESA measures the effectiveness of the online pd offered teachers. A respondent could select all

applicable choices from a list of seven measures. Table 9 shows reveals that half of the ESAs measure degree of satisfaction of participants (54.4%) and level of participation (50%).

Approximately one-fourth of respondents indicate the ESA measures change in teacher knowledge (24.4%) and change in teacher classroom practices (23.8%), respectively. Approximately one in ten ESAs does not measure effectiveness of online pd. Two respondents explain "other" measures as "survey participants" and "online courses are evaluated with the same method as traditional courses."

Table 9. How ESA Measures Effectiveness of Online PD Offered Teachers

Measurement	No.	Percent
Measure degree of satisfaction of participants	87	54.4
Measure level of participation	80	50
Measure change in teacher knowledge	39	24.4
Measure change in teacher classroom practices	38	23.8
Measure quality in relation to a standard	29	18.1
Measure impact on student learning	29	18.1
Measure cost savings of online pd compared to other pd delivery methods	27	16.9
Do not measure effectiveness of online pd	18	11.3
Other, please specify	2	0.2

Satisfaction Rating

One question on the survey asked the respondents to rate satisfaction of online pd offerings: On a scale of 1 (low) to 10 (high), how satisfied are you with the quality of online pd opportunities currently offered or made available to teachers by your ESA? About one-fifth of the 120 respondents to the question rate satisfaction as a 5; another fifth rate a 7. The mean rating for the 120 respondents was 6.04 with a standard deviation of 1.84 (see Figure 7).

Figure 7. Satisfaction Ratings of ESA Online PD Offerings by Respondents
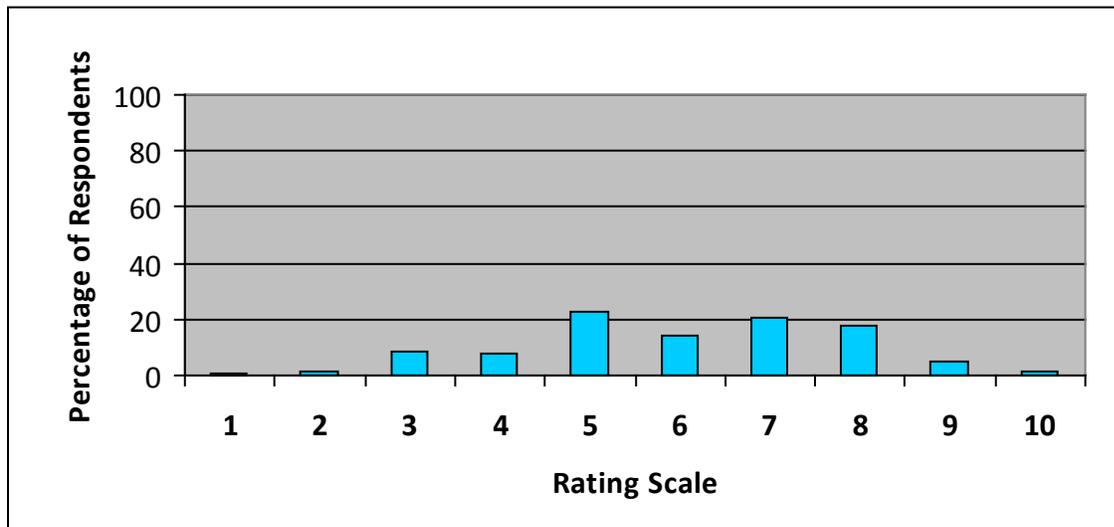
Online PD Barriers

ESAs also confront numerous barriers in providing online pd to teachers. A question on the survey asked: Based upon experiences of your ESA in making online pd available to school districts, to what extent is each of the following a barrier in expanding online pd to teachers? Table 10 shows results for each of the 13 barriers. When combining the "great extent" and "very great extent" ratings, the barrier "Attracting necessary funding" was selected by the greatest percentage of respondents (62%). The barrier selected by the second highest percentage of respondents was "Overcoming teacher perceptions of no time to participate during school day" (50.4%), followed by the barrier "Building interest among teachers who want traditional pd (e.g., face-to-face workshop) (49.2%). The barrier indicated by the lowest parentage of respondents combined ratings was "Providing teachers with adequate Internet connectivity at home" (23.5%).

Table 10. Respondent Ratings for Barriers in Expanding Online PD to Teachers

Barrier	Not at all	A little extent	Some extent	Great extent	Very great extent
Attracting necessary funding (n=121)	2.5	5.0	30.6	29.8	32.2
Eliminating technology incompatibility issues in school districts (n=121)	11.6	20.7	36.4	22.3	9.1
Determining best mode of technology to use in offering online pd (n=119)	9.2	21.8	44.5	21.8	2.5
Providing teachers with adequate Internet connectivity at home (n=119)	20.2	23.5	32.8	12.6	10.9
Identifying high quality, sustained online pd needed by teachers (n=120)	5.0	17.5	39.2	26.7	11.7

Table 10. Respondent Ratings for Barriers in Expanding Online PD to Teachers (continued)

Building interest among teachers who want traditional pd (e.g., face-to-face workshop) (n=120)	1.7	7.5	41.7	32.5	16.7
Overcoming teacher perceptions of no time to participate during school day (n=119)	6.7	6.7	36.1	35.3	15.1
Overcoming inadequate technology skills among teachers (n=121)	.8	18.2	45.5	26.4	9.1
Gaining support among school district leadership that online pd is effective (n=119)	6.7	16.8	37.0	29.4	10.1
Gaining support among teachers that online pd is effective (n=118)	3.4	14.4	42.4	34.7	5.1
Building ESA personnel capacity to facilitate online pd opportunities (n=121)	9.9	13.2	37.2	26.4	13.2
Designing successful ESA marketing practices to promote online pd (n=121)	9.1	17.4	34.7	28.9	9.9
Determining what online pd promoted by vendors works best to improve teaching and student learning (n=121)	12.4	16.5	35.5	24.0	11.6

A respondent could also indicate "other" barriers. One respondent notes barriers of "funding for technology in classrooms" and "implementation of practices." Another respondent notes "available sites that have the needed equipment." Five respondents cite "time" in explaining a barrier. For example, one respondent notes: "The educators in rural areas have many extra duties to perform during the school week and it is difficult to fit another thing into that schedule." Another example on time limitations is a respondent who specifies the barrier is "overcoming teacher reality of no time to participate in the school day."

Three "other" respondents note the lack of personnel to pursue offering online pd. One respondents notes a barrier is: "Our courses are graduate level courses and some teachers have dropped out because they were more 'work' than they expected....For the very reason that some avoid online courses (assumptions about rigor and quality), others drop the courses because they were expecting them to be easy credit." A second respondent proclaims a barrier is "getting word to the teachers," while the third respondent points out a barrier is "improving our ability to better use online training effectively."

Sustained Online PD

Research reveals high quality professional development is embedded and "sustained" over a time period adequate for teachers to increase knowledge and skills, rather than simply being a one-shot event. Consequently, a question on the survey asked the respondent to describe how the ESA addresses this "sustained" quality feature.

Of the 160 ESA respondents who offer online professional development, 69 provided comments on how the ESA addresses the issue of providing high quality pd that is embedded and "sustained" over a time period adequate for teachers to increase knowledge and skills, rather than simply being a one-shot event. Five themes emerge from the analysis of respondent comments.

1. Direct Follow-up Assistance

An ESA may plan to provide direct assistance as part of the online pd. For example, one ESA provides opportunities for the online pd participants to continue to contact presenters of the pd sessions. An ESA may provide continuing online follow-up and or provide on-site follow-up visits by coaches on a set schedule during the online pd. Scheduled face-to-face networking sessions or workshops may be held. One ESA notes: "We do face-to-face meetings to open and close each course. The face-to-face meeting at the end includes an exhibit of practices or tools created by the teachers through the course. The folks in the course also find resources in each other and we are learning that they continue to network after the course is over."

Another ESA provides consultants in the districts as coaches or guides "by the side" of online participants. An ESA staff member who provides the online pd may also provide follow-up technical assistance "as requested." Follow-up assistance of ESAs may be a combination of online pd and on-site face-to-face workshops. For example, an ESA respondent notes: "We do a series of online workshops with lots of facilitation and follow up along with coaching and technical assistance."

2. Technology Applications

Several ESAs embrace applications of technology in offering sustained online pd, rather than one-shot events, especially for teachers in rural areas. One ESA respondent notes: "Allowing for educators to connect 24/7 through computer applications gives them flexibility and it removes some of the isolation of rural teaching." Several ESA respondents acknowledge using Moodle tools, for example, to include reflection and dialogue among teachers. ESAs also use Wiki and blog activities to provide follow-up assistance for teachers who participate in online pd.

3. Extended Time Period

ESAs also extend the time period of the online pd to address the evidence that one-shot workshops or event are ineffective. An ESA may offer an online course over an extended period of time with built in support for participants. For example, one ESA respondent notes: "Because we usually offer (online pd opportunity) over 9-12 weeks there is ongoing support built in." Numerous respondents indicate the ESA offers the online pd opportunity over a semester or year-long period. One ESA notes it "carries pd throughout the year with face-to-face meetings at various intervals and coaching is used extensively with our online and face to face offerings." Thus, some ESAs replace the one-shot event with online pd and support activities scheduled for a set time of several weeks, a semester, or a school year.

4. Teacher Grouping

ESA respondents report "sustained" online pd approaches include connecting teachers from multiple schools or school districts as a cohort group, learning community, or network. One ESA respondent notes: "Learning communities are often developed in an effort to help the online participants continue the dialogue and learning that has taken place during the course or event." One respondent notes they "make teachers feel they are a member of a community of learners so they can communicate with each other after it (online pd) is over." Another strategy by an ESA is formation of monthly user groups and online moderated communities with on-going resources sent to participants after completion or while taking on-going pd classes. One ESA notes how sustained online pd might occur in the future: "We are in the midst of developing a regional professional learning community/professional development program that will allow teachers to learn from each other within and across school districts."

5. Job-embedded Improvements

Online pd offerings may be sustainable by linking the opportunities to continuous improvement efforts of schools and districts. One ESA respondent notes: "Many (online pd) trainings are "over time" and include job-embedded work." This approach usually includes ongoing communications with teachers that are also linked to school improvement plans. One ESA respondent notes using "looping on concepts and skills being taught so that learning is imbedded in the practices used in the classroom." Another respondent notes: "Participants create and implement job-embedded assignments which showcase and document skills and concepts learned."

Online pd may include teachers fulfilling assignments in the classroom and sharing them with other online pd participants. As one respondent notes, online pd opportunities may encourage "monitoring teacher utilization of pd skills in the classroom by the district principals through informal/formal evaluation." Another respondent notes online pd "offerings are conducted in blended environment to facilitate networking and application analysis." A respondent points out: "The online program includes embedded reflective and follow-up questions that the district/school instructional coach monitors." A semester or year-long online course may require the teacher to report how the instruction is being embedded into the classroom and impact on students. For example, an ESA respondent notes: "We require lesson plans and feedback on how students performed."

Other Challenges

For some ESAs, sustained online pd is a difficult challenge in the current budget environment. For example, one respondent point out: "Given the ongoing and very public fiscal issue in this state, sustaining (online pd) is a very significant issue and one that we don't know how the "fight" will turn out." One ESA respondent notes: "Sustainability is an issue. Follow up is not always provided due to lack of funding." Other ESAs respondents report they do not do a very good job with the issue of sustaining the online pd. For example, one ESA respondent acknowledges: "Our online pd is not sustained." Finally, one ESA reveals the need regarding

sustaining online pd: "This is a constant struggle, state initiatives change, and grant or federal funding used for the PD has specific guidelines on how to spend funds. We would benefit from any great insight on how to do this with fidelity and with low cost to the ESA."

Future Plans: Selection Process, New Online Opportunities, and Viable Business Models

Of the 160 ESA respondents who offer online pd, 98.3 percent of the 118 who answered the question indicate the ESA plans to offer or continue offering online pd to teachers. Only two of the 118 indicate "No." Another question on the survey asked: Does the ESA have a formal process for identifying what online pd to offer?

Approximately two-thirds (65.3%) of the 118 ESA respondents who answered the question indicate the ESA does not have a formal process for identifying what online pd to offer. Thus, one-third (34.7%) of the ESAs responding to the question have a formal process, which is about one-fourth (n=41) of the 160 ESAs who indicate they offer online pd. Thirty-five of the respondent offered comments to explain the process.

Comments reveal numerous ESAs conduct formal surveys of member districts to identify online pd needs. This may be part of the ESA's annual needs assessment of district needs. Another approach may be ESA staff review documents such as school and district improvement plans, curriculum assessments, and student test data in determining online pd offerings. An ESA may rely on direct feedback from staff members who work closely with district personnel responsible for professional development. An ESA may have an advisory committee that recommends online pd offerings. For example, one ESA respondent notes the ESA uses a "professional learning advisory committee that meets quarterly." Another ESA process is to rely on evaluation of feedback from participants, input from school administrators, input from survey data, and input from ESA staff.

An ESA online pd selection process may consider state initiatives and state and federal grant sources in deciding what online pd to offer school districts. For example, one ESA respondent explains: "We develop online courses to support new laws and based on teachers' needs." An ESA process may include student test score data and priorities of building principals as important in selection of online pd. One ESA respondent notes: "We don't differentiate needs assessment for online versus face-to-face (professional development) offerings. Our process involves numerous advisory councils, networks, formal pd planning process ... and program-provider decisions about the "how" of delivery." Another ESA uses continuous interaction with partner districts and other ESAs along with surveys of area professional development personnel, instructional leaders, and teachers. An ESA online pd offering may also be in response to "superintendent request."

New Online PD Opportunities

As part of explaining future ESA plans, a respondent could describe the best way for the ESA to learn about a new online pd opportunity that the ESA then offered or made available to

teachers. ESAs use numerous ways to learn about a new online pd opportunity that is eventually offered to teachers. Of the 160 ESAs who offer online pd, 112 respondents offered comments. Seven themes emerge in the analysis. Numerous themes appear to rely on word-of-mouth communications.

ESA Staff

ESA staff recommendations are an important way to determine online pd offerings. For example, one ESA respondent notes: "Our consultants are expected to regularly attend learning opportunities, read about their areas, etc., and bring recommendations to our agency." ESA staff members also interact with vendors, district personnel, university personnel and colleagues in identifying online pd opportunities for teachers. An ESA may also rely on the experience of ESA consultants who work directly with district teachers and administrators in determining online pd offerings.

District Requests

ESAs routinely rely on requests of district personnel in selecting online pd opportunities for teachers. For example, one respondent notes the ESA "professional development director researches ideas with school district leaders." Another respondent notes online pd opportunities are identified through "sharing at our curriculum and technology meetings." District request for online pd may also surface at ESA board meetings. Teachers who facilitate online pd for the ESA also are a valuable source of information. One ESA respondent notes: "We have been rotating teachers through facilitator class and they have been able to select high interest courses." In some instances district requests specify a preferred vendor.

Networking

Networking is an important way ESAs determine what online pd opportunities to offer teachers. For example, one ESA respondent notes: "Network meetings with discussion time on what has worked within the school districts." Another respondent explains: "Networking with organizations such as AESA, ASCD, and AASA." Another comments: "Networking with other technology staff in the state, participation in technology conferences and training sessions." For example, a respondent notes online pd is identified through "our state job-alike networks, our professional organization participations, and direct interaction with pd providers with appropriate content to offer." Another ESA respondent notes: "Statewide network of educational technologists sharing through regular meetings and listservs." One ESA notes: "Typically any pd opportunities are discussed with colleagues. If a colleague finds a vendor viable, then we are more willing to try it." Another ESA respondent explains: "We have a wonderful collaboration with our district curriculum directors, they pass along the information."

State Initiatives

ESAs may determine online pd offerings specifically linked to initiatives and or funding of the state board or department of education. For example, one ESA respondent notes: "We have

looked at training programs and mandates that require a large number of educators to receive the same mandates. Then, we have created our own program or worked with the Department of Education to implement a program. Another respondent notes: "pd courses are determined by what the state is currently doing."

Vendor Communications

ESA respondents report a number of ways they rely on communications with vendors to determine online pd offerings. For example, several respondents note reviewing vendor E-mail advertisements such as flyers, brochures, and newsletters or an online pd bulletin. ESA staff members also attend vendor conferences, participate in formal vendor presentations, conduct internet searches of vendor's online pd offerings, and interact face-to-face with vendors.

Formal Needs Assessments

An ESA may also determine to offer online pd based on formal surveys or needs assessments of school personnel. Recommendations from advisory groups or an advisory committee can be an important way to determine online pd offerings. Two ESA respondents note the use of student achievement results. For example, one ESA respondent comments determination of online pd needs occur "through data gathering and evaluation of data to determine strengths/weaknesses in curriculum, instruction, and assessment." One ESA notes the use of teacher focus groups as the need assessment.

Conference Attendance

Attendance at conferences sponsored by state and national organizations is also cited by ESA respondents as a way for the ESA to learn about a new online pd opportunity that are offered or made available to teachers. For example, one ESA respondent notes their best way is "Attendance at national conventions/workshop training." Another respondent notes: "Attending state level programs and learning about initiatives and best practices." Conference attendance may also be associated with networking mentioned previously as a way an ESA determines pd offerings for teacher.

Viable Business Models

Given the current economic climate could impact future online pd plans of ESAs, the survey asked the respondent to describe the most viable business model or strategy the ESA has found to sustain online pd offerings. No one business model prevails in ESAs for supporting online pd offerings. More accurately, combinations of models may be at work in many ESAs, if a business model exists at all. Generally, comments of ESA respondents reflect a business model for supporting online pd around five themes: nonexistent or evolving, district cost-savings, shared capacity building, grant funding, and entrepreneurial marketing.

Nonexistent or Evolving Business Model

Responses reveal the concept of determining a "business model" for offering online pd is unknown or evolving in many ESAs. Teacher professional development has been traditionally offered free to teachers. Many ESAs report no business model is used and the ESA is striving to find ways to support online pd offerings. The concept requires new thinking in how pd has been supported previously in many ESAs, illustrated by comments such as "Still trying to figure this out," "still investigating," and "still researching." One ESA respondent reports, for example, "There is very little cost in what we do." Another respondent comments: "We currently use co-ops but would love to learn how others are doing this."

District Cost-savings

Some respondent comments reveal the ESA is using online delivery of pd to save a district the usual cost of travel for teachers to attend professional development, perhaps resulting in a redirection of funds to support online pd offerings. For example, a respondent notes: "PD is necessary and online requires less travel, thus offsetting PD travel costs." Another ESA reports: "Provide online trainings instead of having teachers travel for face-to-face sessions - we are very isolated." Another ESA respondent explains "reducing travel, reducing the need for substitutes, and chunking pd in formats teachers can access during planning time and team meetings" is a way to offer online pd. Another respondent says the ESA is "working to keep learning sessions short (30 - 45 minutes), after-school, and on Saturdays to avoid travel and substitute costs."

Shared Capacity Building

An ESA may encourage several districts or schools to form a consortium to share resources in offering online pd. One ESA respondent notes: "Charging a low fee to form a consortium of schools to build capacity for online learning." One ESA respondent comments: "Shared funding ... with payback to (district) members." Respondent comments also reveal that multiple ESAs or a state network of ESAs are working collaboratively to pool resources in offering online pd. A respondent notes the ESA is **"w**orking with other ESA cooperatives in the state to 'pool' resources together." One respondent reveals the ESA business models is "training school personnel at no cost to facilitate (online) courses with the expectation they facilitate a course for the ESA."

Grant Funding

Several respondents indicate the ESA offers online pd with grant funding as the most viable business model or strategy to sustain online pd offerings. One model is to use grant funds for ESA staff to develop their own online pd offerings. Grant funds may also be an important part of a blended business model. For example, one ESA respondent notes: "Blend of fees, grants, and partnerships with other providers." One respondent uses grants to offer the online pd and explains: "I look for small donations from businesses to offset the cost of any materials." In the blended model, some ESAs may also choose to use a combination of state, federal and local funding sources. User fees may also be included. As one respondent explains the model is to

use "grant-funded delivery, when available, and fee-based delivery in areas locally-identified as of value." An ESA may leverage grant funds and use general funds in strategic ways to address multiple goals. Another possibility is to "write a grant to pay for part of the cost and then pass the rest of the cost on to participants."

Entrepreneurial Marketing

Fees for online courses and "pay as you go or bill the districts for each participant" represent an entrepreneurial approach to offering online pd. One respondent comments: "This year and next we are going to offer most online pd at cost plus 10%. Our intention is to have teachers get used to online before we turn much of a profit." Other ESAs are intensifying direct marketing and promotional efforts to offer online pd. For example, one ESA respondent notes promotion of online pd is the business model "through electronic information such as e-mails, newsletters and brochures" to school districts. Another respondent reveals the ESA is using "strong public relations and communications" as the business model for supporting online pd offerings. In the current economic climate, one ESA respondent notes: To be honest, this is currently a concern for our ESA. We are moving from an ESA-supported model to a local district-supported model in order to sustain our (online pd) system."

One ESA respondent points out: "Our teachers pay for the PD for professional growth points. It is much cheaper and more convenient than taking courses at a university." Other respondents note self funding but charge fees to cover costs. Charging tuition may be the business model for some online pd courses. An ESA may also choose to discount graduate credit from a university associated with an online pd offering. One respondent indicates the ESA "buys a limited number of licenses (for school districts) in a reduced-cost bundle and does not order more until all of those are sold." Another respondent reports the ESA uses free, open source materials and learning management systems (LMS) to reduce costs to school districts.

One ESA seeks to "make training mandatory." Another respondent reveals: "We have offered some mandatory training to teachers in our customer school districts at no charge. If we have individuals from districts outside our county wishing to participate in our programs, we have charged them a set fee. We use Paypal to receive tuition." One respondent points out that the ESA "generates support for their own pd offerings by allowing other ESCs to resell our online PD courses."

Additional Comments of ESAs Providing Online PD

Respondents could provide additional comments that might help explain the status of online pd in the ESA. Following are comments of respondents that reflect five key themes.

Recognizing the Future & Advantages of Online PD

Comments of several respondents proclaim online pd is the future, with "great potential for growth," and offers several advantages for meeting needs of teachers and school districts. For

example one respondent notes: "I feel that using online PD as a support for face-to-face is the wave of the future." Another respondent explains: "It is growing in popularity and effectiveness and in light of the state budget this will be the way to go. There is also a need to have every educator have a successful experience with online learning."

Respondents highlight several advantages. One respondent indicates: "We are using online more and more because it increases access and decreases travel cost, substitute time (costs), and time out of the classroom for teachers." Another respondent notes: "We would prefer online PD over all other options given our tremendous distance from other locales. We are a single-district county, so in essence our ESA serves ourselves." A third respondent points out: "The face-to-face real time video conferencing has been very valuable to save transportation costs and time in our rural area with vast geographic distances." One respondent explains: "Schools do not have the funds to send staff to workshops outside the district. Technology addresses this issue and the time factor as well." Another respondent notes: "We are isolated and travel is expensive, so online is our new best friend!"

Online pd has certain advantages for young teachers, according to one respondent, who notes: "Online courses support the needs of many young teachers who have small children and need the convenience of working from home in a self-paced atmosphere." Another respondent simply states: "I like it because it meets the teacher when they need it."

Other respondents point to the evolving successes they are beginning to experience with online pd. One respondent note: "It is starting slower than we expected, but we are hoping that the folks who have taken courses will assist in getting the word out there, as the course evaluations have been very, very positive." A second respond explains: "We have grown in our offerings in the last few years. What we have found that works best is a blended model, where you have a kick-off meeting prior to any online classes and then a final meeting to discuss how things went." Another respondent notes: "The monitoring piece with PD360 allows administrators to print reports and monitor very closely the online learning. The reflection and follow-thru coaching is very important. The online communication through communities is an additional benefit." Another respondent reflects on the ESA's past experience: "An online hybrid is the most efficient, effective and equitable model from our perspective." Another respondent says: "Much of our PD is face-to-face but we have had success with online PD and plan to utilize this model more in the future."

Now is the time to explore online pd according to some ESA respondents. One respondent notes: "With the new common core implementation, we are exploring grade level opportunities as well as for credit." Another respondent points out: "Our school districts are seeing the need to provide more online learning opportunities." Related to this futuristic viewpoint, a respondent believes school district leaders now "see a future of schools without walls and of students being able to learn anytime and from anywhere." A respondent notes: "Online pd is very cost effective and we would be willing to explore this opportunity." Lastly, a respondent reveals optimism for the future of online pd: "These are exciting times in the delivery of staff development. We are just scratching the surface with the online delivery and I see this area ballooning in the next few years."

Funding Issues

Numerous respondents cite funding issues as the ESA strives to provide online pd. One respondent notes: "Our greatest issues are with funding and staff shortages. Another respondent remarks: "Funding crisis is the biggest reason that we have not pursued this option further." One respondent points out a possible funding issue: "Limited ESA personnel capacity is our main limitation. We don't have the number of people on staff to do all we want to do." The state funding crisis presents a major challenge for an ESA respondent, who notes: Small rural schools are struggling with the funds to sustain pd. By slashing the state budget for pd, the entire state is in jeopardy of neglecting pd in any form."

One respondent notes: "We are continually growing with more electronic training; nevertheless, it is always difficult with a limited budget." Another respondent points out gaining "funding and buy-in from districts are challenges." "Finding quality professional development and finding the funding to pay for it" is the issue of one respondent. Another respondent explains the funding issue for the ESA this way: "We are looking for a sustainable financial model."

Overcoming Barriers

Comments of some respondents reveal barriers to offering online pd, somewhat separate from the funding issues. Funding could be related, but several barriers require changing people attitudes, policy decisions, and or updating technologies to accommodate future delivery of online pd opportunities for teachers. The following bulleted statements of ESA respondents reflect the barriers.

 ➢ Many administrators still do not believe that it (online pd) is viable method for learning
 ➢ Some districts do not value online education for teachers and will not reimburse teachers for online courses
 ➢ Offerings are not supported by local school districts
 ➢ Many small districts continue to struggle to provide up-to-date hardware and software
 ➢ Need more band width in most districts
 ➢ We don't have adequate band width to facilitate online PD
 ➢ Teacher knowledge of technology and access to the technology is very important
 ➢ Teachers are interested in online opportunities but we need instructors comfortable in that environment
 ➢ Teaching teachers how to provide facilitated, blended online learning to students

Getting Started and Needs

Many respondent acknowledge that the ESA is "at the infancy stages right now" in providing online pd opportunities for teachers. A respondent notes: "We are just beginning. It will take time for teachers to realize the convenience and quality of PD on line." A respondent explains: "We are just at the very beginning of this. We would benefit from learning from others that have a longer history in doing this effectively."

Additional comments of respondents reveal a clear need for assistance of various kinds in getting started and advancing online pd opportunities for teachers. One respondent notes: "We need to become more aware of high quality offerings that would be attractive to teachers." Another respondent expresses: "We need to learn more about available internet platforms." Another respondent explains: "We definitely need more guidance in this arena (online pd) if we want to do things right!"

Building capacity and sustaining quality pd that gets results are needs. One respondent notes: "We are only emerging in this area and could use support to build our capacity to deliver effective, sustainable PD, and evaluate the effects." Another respondent explains: "We have begun to explore online PD as a venue and are hoping to increase the number and types of offerings in the future, to focus on sustaining opportunities, and to assess impact on teachers and their students." One respondent notes the ESA "needs to find sustainable models and gain support from our members."

Determining ways to select quality pd are needs in some ESAs. According to one respondent the ESA "needs a centralized data base with easy search routines to identify research-based effective PD." Another ESA respondent puts the problem this way: "The market is crowded...much junk... how to sort out the good, bad and ugly is what is needed." One respondent's focus is on ESA needs relative to student achievement: "We need access to student data to see whether there has been a change in student outcomes. However, online learning, if done correctly, gives the instructor much more information on whether the user has grasped what is being taught."

Though noting education is far behind business and industry in innovations like online pd, a respondent also expresses optimism for online learning in education and the value of more research like this survey: "Online professional development will continue to grow in education. We are in the infancy of this way of learning. Industry is miles ahead of education in this arena. Keep up the good work, research will help to move it forward."

Developing ESA Personnel & Networking

Comments of ESA respondents also reveal how offering online pd affects the organization and personnel development. One respondent notes: "We need to have expertise to develop online courses so they are interesting and can be measured." Another respondent explains: "The participation rate on any type of PD is the key. To scatter learning in many ways makes our agency less effective, and we attempt to identify strategies and ensure that all our schools and teachers receive opportunity to learn and implement a regional focus." One respondent expresses change underway and the concern for assuring online pd is high quality: "We are currently revamping our course offerings to increase quality and learner engagement. We have also recently switched from a Blackboard type platform to Moodle. We continue to struggle to maintain the same high standards as our face-to-face courses."

One respondent expresses the ESA's customer viewpoint: "This (online pd) is an identified area of need for our customers and internal training for our staff. We have been working diligently to change the point of view of our consultants so that they may see clearly the need and the

importance of moving from a face-to-face model at the center to more customized, on-going and targeted pd. This shift is happening and we have been using this time to build the skill set of our staff so that the online pd provided to districts is of the highest quality." Another respondent reveals the ESA's personnel capacity issue: "The tipping point has been tipped; the tide has turned. Our greatest challenge is to build the capacity of our internal pd professionals to use online options to deliver their own expert content as part of their delivery toolkit." One ESA respondent simply notes: "It is an emerging medium and training our personnel in effective prep and delivery is a priority."

Comments of respondents also reveal how the ESA is beginning to create networks, form partnerships, or select vendors that help them address capacity needs for offering online pd. One respondent notes: "Online PD saves time and money while expanding our training reach; teachers from outside (the state) are starting to take our online courses. We are developing partnerships such as the ESC eLearning Collaborative that promote resource sharing and networking." Another respondent expresses optimism through a vendor partnership: "We are excited to welcome additional opportunities, such as a tentative working relationship with Intel's online pd initiative.

Findings: ESAs Not Offering Online PD

Respondent Demographics

Of the 226 respondents, 66, or 29.2 percent indicate that the ESA did not offer or make available any type of online professional development (pd) in the last three years. Table 11 reveals the respondents represent ESAs located in 20 states. One fifth (21.2%) of the respondents represent ESAs in Massachusetts and New York.

Table 11. Respondents of ESAs Not Offering Online PD by State

State	No.	Percent
Alabama	1	1.5
Arizona	5	7.6
Arkansas	3	4.5
Illinois	5	7.6
Indiana	2	3.0
Kentucky	3	4.5
Massachusetts	7	10.6
Michigan	5	7.6
Minnesota	1	1.5
Mississippi	2	3.0
Nebraska	2	3.0
New York	7	10.6
Ohio	2	3.0

Table 11. Respondents of ESAs Not Offering Online PD by State (continued)

Oregon	5	7.6
Pennsylvania	4	6.1
Rhode Island	2	3.0
South Dakota	1	1.5
Utah	4	6.1
West Virginia	2	3.0
Wisconsin	3	4.5
Total	66	100.0

Figure 8 shows slightly more than half (56.1%) of respondents held the title of CEO. Professional development coordinator comprise one-fourth (25.8%) and almost one fifth (18.1%) held "other" titles. The other titles include Assistant Director, Assistant Superintendent, Assistant Superintendent for Instructional Support Services, County School Superintendent, Director of Instruction, Director, Instructional Technology and Professional Development, Media/Distance Learning Coordinator, Project Director, Regional Superintendent, and Regional Superintendent of Schools. One respondent indicates "Part time coordinator of a state PD grant through the ESA."

Figure 8. Title of ESA Respondent in ESA Not Offering Online PD
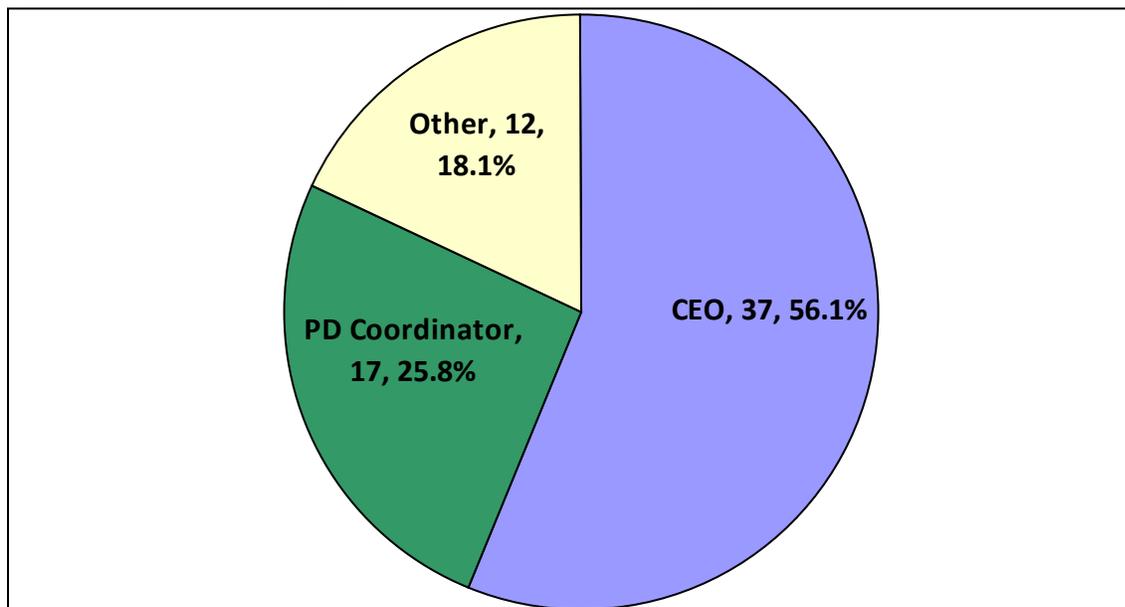
Approximately one third (37.9%) of the 66 respondents indicate the ESA has 10 or fewer member school districts. Slightly more than one-third (34.8%) has between 11 and 18 member districts; about one-fifth (18.2%) have 21 to 27 member districts; and the remaining six ESAs (9.1%) having between 31 and 42 member districts.

Of the 66 ESAs, four in ten (43.9%) serve non-public schools. Four in ten (40.9%) also serve charter schools. Figure 9 shows approximately 14 percent of the ESAs have a total of 499 or

fewer teachers employed in member districts. Approximately one-fifth (21.2%) of the ESAs have between 500 and 1,000 teachers employed in member districts. Almost three in ten (28.7%) ESAs have between 1001 and 2,500 teachers in member districts. About one-fourth (24.2%) have between 2,501 and 5,000 teachers in member districts. Slightly more than one in ten (12.1%) ESAs have 5,001 or more total teachers employed in their districts. Of these only one ESA has 10,000 or more teachers employed in member districts.

Figure 9. Total Teachers Employed in Member Districts of ESA Not Offering Online PD
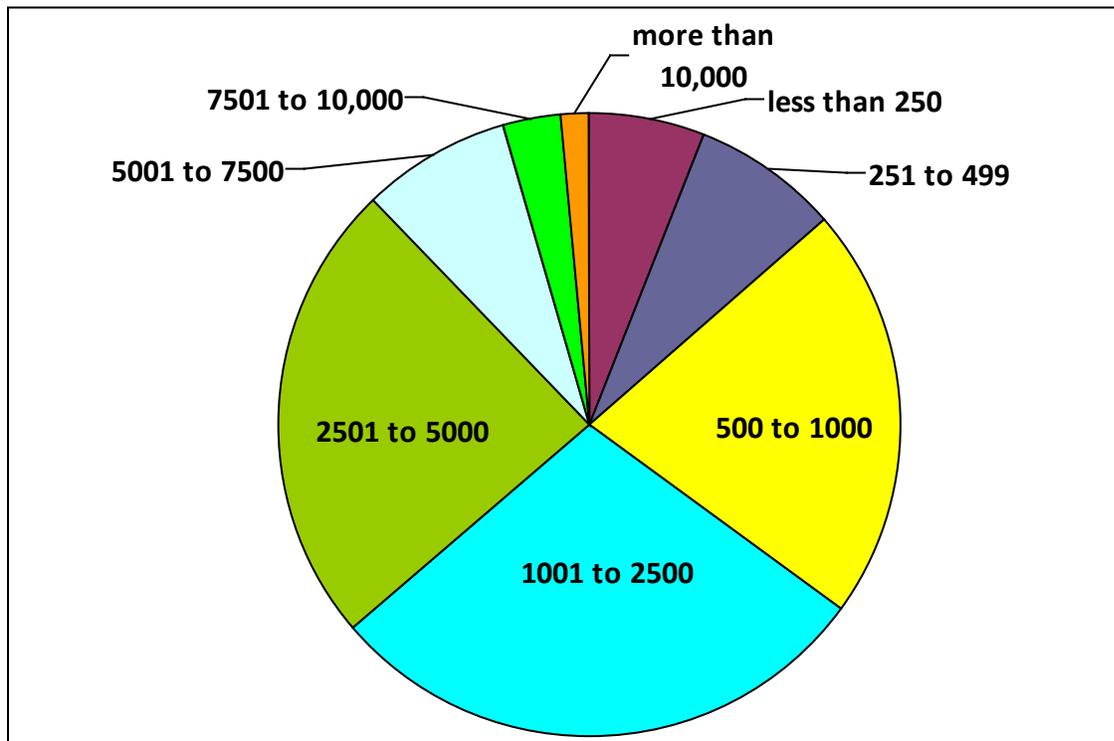
Future Plans

Forty-five of the 66 respondents in the ESAs who have not offered or made online pd available to teacher in the last three years answered the question about future online pd plans. More than half (57.7%) of the 45 respondents indicate the ESA plans to offer online pd to teachers. Ten of the 45 respondents, or about one-fifth (22.2%), indicates the ESA has a process for identifying what online pd to offer. Comments of ESA respondents who offered to explain the process include:

➢ Advisory Committee for PD
➢ Agreement with INTEL
➢ Input form districts data
➢ PD is identified by the Curriculum Leadership Team
➢ Needs assessment
➢ Survey needs of staff as to how they would use online PD. We do offer such programs as PD 360, but we do not facilitate
➢ Survey of member district administrators

- ➢ Surveys (written and/or face to face interviews) of teachers, principals, superintendents and support staff
- ➢ Through professional development director

Additional Comments of ESAs Not Offering Online PD

Respondents in ESAs who did not offer online pd were asked to provide additional comments important for explaining the status of online pd in the ESA. Comments of several respondents reveal the ESA is supportive of offering online pd to teachers. One respondent notes: "I think they're necessary and a good way to preserve scarce resources." Other supportive comments include:

- ➢ This is an area we need to move in
- ➢ We are working on it." "Online pd offers a timely nature of information.
- ➢ We are currently looking at online PD for future opportunities
- ➢ We are in the initial stages of developing online pd to offer to our districts
- ➢ We are still in the baby-stages of offerings...we are not even sure of the questions to ask, but are looking at 'moodle' as a possible place to start

Comments of some respondents reveal issues or limitations of the ESA in offering online pd for teachers that must be addressed. One respondent notes: "Lack of stable connectivity with our districts is a very limiting factor. We do not have capacity to offer courses. There are teachers who take online courses/pd from the University, community colleges, and through IDEAL, but we don't offer them. Another respondent explains: "We are a relatively small, rural ESA. Staff capacity to develop offerings is an issue." Another respondent notes: "We need someone to manage any online PD we would offer."

Two respondents point out teacher skills or preferences as issues. One notes: "Many teachers aren't used to the technology," while the second points out that "there are concerns about the delivery method and who is actually participating. It seems that any time discussion centers around online pd the general consensus is that participates still prefer face-to-face (pd)."

Demand for online pd is a concern for some ESAs, or ways to accurately assess need for the ESA to offer the service. One respondent notes there is "not much demand for it at this point." Another suggests "our component districts have not yet indicated a need for it." One ESA respondent emphasizes that "we have not had a lot of interest in online professional development in our region." Another respondent explains: "While this is a desirable medium to use for teacher pd in terms of convenience for "consumers", it is difficult to assess if the market is saturated and this is not a good investment of time and resources for an ESA division already struggling." Recognizing a similar situation for the ESA, another respondent notes: "We are not going to be looking into this until it is requested by our school districts."

One respondent is concerned with the quality of online pd available and explains: "If you can't measure quality of online training, Don't use it! Being on line doesn't mean it is quality." Lastly, one respondent notes a state incentive that supports offering online pd for teachers: "Our state department of education just signed a contract with PD 360 encouraging school districts to use that service."

Conclusions

T he purpose of this exploratory study was to determine the status of online professional development (pd) in educational service agencies (ESAs) across the United States. The response rate of 42.4 percent from the universe of all CEOs in a database compiled and maintained by the Association of Educational Service Agencies (AESA) is among the highest ever achieved for a national web-based survey of ESAs. The researcher draws 12 conclusions regarding the status of online professional development (pd) in ESAs.

1. Although ESAs may offer online professional development opportunities to administrators, teachers in public schools, charter schools, and non-public schools are the primary audience for online professional development currently offered by ESAs in the U.S.

2. ESAs offer a large variety of online professional development opportunities for teachers, which predominantly include online courses approved for continuing professional education and/or re-certification credit, online webinars on various educational topics, and online access to pedagogical and/or subject matter content and videos of best teaching practices.

3. Generally, ESAs obtain online professional development content from a variety of sources. Important sources include content designed by staff or free from providers such as state departments of education, public broadcasting, or other ESAs. Generally, no one private provider is common among ESAs who purchase online pd offerings for teachers.

4. ESAs commonly use a variety of incentives to encourage teacher participation in online professional development, particularly those that are perceived of value for enhancing teacher classroom practices and renewing the teaching license or certification.

5. ESAs commonly use the "online blended or hybrid approach" in delivering online pd. ESAs show no preference currently for facilitated online asynchronous versus non-facilitated online asynchronous delivery methods. Generally, ESAs train their own personnel for the facilitator role.

6. Most often ESAs prefer Moodle as the technology platform to offer online pd to school districts, used more than twice as often as Blackboard. Although ESAs may use a large variety of online technology tools to support online professional development offerings, common tools include Skype, Elluminate, and Adobe Connect.

7. Generally, ESAs use a large assortment of funding streams to make online professional development opportunities available. ESAs commonly fund online professional development opportunities by charging a participation fee that is paid in total or part by the teacher, the school district or other entity (e.g. state funding, federal grant, private business). No one business model prevails in ESAs for supporting online pd offerings. More accurately, combinations of models may be at work in many ESAs, if a business model exists at all.

8. Generally, ESAs are somewhat satisfied with the online professional development opportunities they offer or make available for teachers. ESAs most typically rely on degree of participant satisfaction and level of participation as common evaluation measures.

9. ESAs face numerous barriers in expanding online professional development opportunities for teachers. Among the most common barriers are (1) attracting necessary funding, (2) overcoming teacher perceptions of no time to participate during school day, and (3) building interest among teachers who want traditional pd (e.g., face-to-face workshop).

10. Providing high quality online professional development that is embedded and "sustained" over a time period adequate for teachers to increase knowledge and skills is a major challenge for ESAs. Numerous strategies are used to address the issue, including (1) direct follow-up assistance, (2) technology applications, (3) extended time period of online pd offering, (4) teacher grouping, and (5) online pd linked to job-embedded improvements.

11. ESAs that *provide online pd* generally view it as "the future" in offering teachers professional development, with many advantages over the traditional approaches. Comments of respondents indicate generally ESAs are in early stages in offering online pd and have numerous needs for capacity-building assistance to support this new ESA initiative, including how to identify, select and sustain quality online pd. Developing ESA personnel, networking with other ESAs, and forming partnerships are possible capacity-building practices.

12. ESAs that *did not provide online pd* in the last three years are generally supportive of online pd. Respondent comments indicate a major issue in numerous ESAs is limited organizational capacity to offer online pd. Lack of demand for online pd and inadequate teacher skills with technology may also be key issues.

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Appendix: Survey Instrument (Word Version)

[Note: Word version was converted to Zoomerang web-based version that resulted in 3-page survey with 57 questions.]

Status of Online PD in ESAs

Directions: The purpose of this voluntary survey is to determine the status of online professional development (pd) practices in educational services agencies. Please respond to each question as instructed. To ensure confidentiality of respondents, information provided by respondents will be reported in group form only. The survey is being conducted by Dr. Hobart Harmon in collaboration with Dr. Brian Talbott, Executive Director of the Association of Educational Service Agencies (AESA). If questions, please contact Dr. Harmon by phone at 540 901 9932, or by e-mail at hharmon@shentel.net.

Be sure to select "**submit**" after answering all appropriate questions on the survey. **Thank You!**

Part A. Demographics

1. Name of state where your ESA is located? (Please check one)

Alabama	Alaska	Arizona	Arkansas
California	Colorado	Connecticut	Delaware
Florida	Georgia	Hawaii	Idaho
Illinois	Indiana	Iowa	Kansas
Kentucky	Louisiana	Maine	Maryland
Massachusetts	Michigan	Minnesota	Mississippi
Missouri	Montana	Nebraska	Nevada
New Hampshire	New Jersey	New Mexico	New York
North Carolina	North Dakota	Ohio	Oklahoma
Oregon	Pennsylvania	Rhode Island	South Carolina
South Dakota	Tennessee	Texas	Utah
Vermont	Virginia	Washington	West Virginia
Wisconsin	Wyoming		

2. Title of person completing survey?

a. CEO of ESA
b. Director or coordinator of professional development for ESA
c. Other, please specify

3. How many school districts are members of your ESA?_____
4. Does your ESA serve non-public private schools?   Yes   No

5. Does your ESA serve charter schools?   Yes   No

6. What is the total number of teachers currently employed in your member districts (Please check only one)?

a. less then 250
b. 251 to 499
c. 500 to 1000
d. 1001 to 2500
e. 2501 to 5000
f. 5001 to 7500
g. 7501 to 10,000
h. more than 10,000

7. Did your ESA offer or make available any type of online professional development (pd) in the last three years?   Yes   No   (**If "No," skip to question 23**.)

Part B. Online PD Offerings

8. Who is the primary target audience of online professional development offered or made available by your ESA? (Please check all that apply)

a. Public school teachers
b. Public school administrators
c. Public school district central office administrators
d. Parents of public school students in ESA member school districts
e. Other, please specify

9. Please indicate the types of online professional development offered or made available to teachers by the ESA? (Please check all that apply)

a. Online courses offered for university graduate credit
b. Online courses approved for continuing professional education and/or re-certification credit
c. Online courses as part of Master's or other advanced degree program
d. Online webinars on educational topics
e. Online access to videos of best teaching practices
f. Online access to pedagogical and/or subject matter content
g. Online semester or year-long facilitated study group of teachers
h. Online mentor teacher program for beginning teachers
i. Online instructional coach for teachers
j. Online learning community for a teachers' network (e.g., middle school math teachers)
k. Other, please specify
10. Where does your ESA <u>obtain</u> online professional development content? (Please answer each item)

a. Our ESA staff designs the online pd content. Yes   No
b. Our ESA purchases online pd content.   Yes   No   (If yes, list name(s) of the provider(s) of the purchased content)
c. Our ESA uses online pd content which is provided to us at no cost.   Yes   No
(If yes, list name(s) of the provider(s) of the no-cost pd content)

d. Our ESA doesn't directly offer online pd but negotiates with a third party to provide the pd to teachers and/or administrators.   Yes   No   (If yes, list name(s) of the third party provider(s) of pd content)

e. Our ESA obtains online pd content in ways not previously described in items a-d. (If yes, describe)

11. Based on experiences of your ESA in making online pd available to school districts, to what extent are the following incentives effective for increasing teacher participation in online pd? (Please rate each statement)

a. Teacher receives online pd that directly assists the teacher in his/her classroom practice.
Not at all   A little extent   Some extent   Great extent   Very great extent

b. Teacher receives a monetary stipend.
Not at all   A little extent   Some extent   Great extent   Very great extent

c. Teacher receives free/reduced cost graduate college credit (non-degree).
Not at all   A little extent   Some extent   Great extent   Very great extent

d. Teacher receives free graduate college credit toward Master's degree.
Not at all   A little extent   Some extent   Great extent   Very great extent

e. Teacher receives free continuing education credits (CEUs) or professional development hours that count toward license/certification renewal.
Not at all   A little extent   Some extent   Great extent   Very great extent

f. Teacher receives free materials related to online pd for use in classroom.
Not at all   A little extent   Some extent   Great extent   Very great extent

g. Teacher receives equipment and/or materials as a result of online pd.
Not at all   A little extent   Some extent   Great extent   Very great extent

h. Teacher receives online coaching assistance to implement knowledge/skills acquired in online pd.
Not at all   A little extent   Some extent   Great extent   Very great extent

i. Teacher receives help desk support services to access online pd opportunity.
Not at all   A little extent   Some extent   Great extent   Very great extent

j. Teacher receives free personal laptop computer to participate in online pd from home or school.
Not at all   A little extent   Some extent   Great extent   Very great extent

k. Teacher receives substitute teacher support to provide designated time for participation in online pd during regular school day.
Not at all   A little extent   Some extent   Great extent   Very great extent

l. Teacher receives opportunity to network with role-alike peer teachers in online pd.
Not at all   A little extent   Some extent   Great extent   Very great extent

m. Other incentives not mentioned previously

12. In your ESA online pd offerings, what are the top 3 incentives commonly offered to achieve adequate participation of teachers? (Please select 3 from the following list).

a. Teacher receives online pd that directly assists the teacher in his/her classroom practice
b. Teacher receives a monetary stipend
c. Teacher receives free/reduced cost graduate college credit (non degree)
d. Teacher receives free graduate college credit toward Master's degree
e. Teacher receives free continuing education credits (CEUs) or professional development hours that count toward license/certification renewal
f. Teacher receives free materials related to online pd for use in classroom
g. Teacher receives equipment and/or materials as a result of online pd
h. Teacher receives online coaching assistance to implement knowledge/skills acquired in online pd
i. Teacher receives help desk support services to access online pd opportunity
j. Teacher receives free personal laptop computer to participate in online pd from home or school (teacher gets to keep computer)
k. Teacher receives substitute teacher support to provide designated time for participation in online pd during regular school day
l. Teacher receives opportunity to network with role-alike peer teachers in online pd
m. Other (please specify):

Part C. Delivery of Online PD for Teachers

13. Please indicate how your ESA delivers or makes available online pd to teachers? (Note: Asynchronous interactions are online communications not limited to time or geography. E-mails, web-based bulletin boards, online forums, and chat rooms are all examples of asynchronous interactions. This type of interaction lets participants post messages in a forum where they are archived and can be retrieved and commented upon by other participants anytime. Synchronous communication is one that occurs in real time independent of location such as chat, instant messaging or video conference. Synchronous communication may be done simply through text exchange or include an audio and video component. In synchronous communication, all participants are present at the same time although they do not necessarily have to be in the same location.) (Please check all that apply)

a. Online self-paced asynchronous (not facilitated)
b. Online asynchronous that is facilitated (interaction with a facilitator and other teachers)
c. Online synchronous with some face-to-face interaction with others (e.g., Skype)
d. Online synchronous with face-to-face interaction only
e. Online blended or hybrid approach (includes online and physical location meetings)

f. Other, please specify

14. How does the ESA routinely acquire the facilitator for an online professional development offering to teachers? (Please select all that apply)

a. No facilitator used in online pd offerings
b. ESA trains own personnel as facilitator
c. ESA personnel is trained as a facilitator by an outside entity
d. ESA uses personnel from local school district as facilitator
e. ESA uses university personnel as facilitator
f. ESA hires outside consultant to serve as facilitator
g. Other, please specify

15. Please indicate the specific technology platform(s) that your ESA uses most often to offer online pd to school districts. (Please select all that apply)

a. Moodle
b. Angel
c. Blackboard
d. Alphastudy
e. CERTPOINT Systems Inc.
f. Desire2Learn
g. QuestionMark
h. CCNet
i. eCollege
j. Fedena
k. GeoLearning
l. Gyrus Systems
m. HotChalk
n. Informetica
o. It's Learning
p. JoomlaLMS
q. Learn.com
r. LearnFlex.com
s. Meridian Knowledge Solutions
t. Plateau Systems
u. Sclipo
v. SharePointLMS
w. SSLearn
x. TOPYX
y. Thinking Cap LMS
z. Vitalect
zz. Other, please specify

16. What functions does the learning management system (LMS) perform in your ESA online pd courses? (Please select all that apply)

a. Course enrollments
b. Course content
c. Course tracking and progress
d. Learner performance monitoring and assessment
e. Individual learner and aggregated reporting
f. Course evaluations
g. Learner data management
h. Other, please specify

17. What online technology tools does the ESA use to support offering online pd? (Please select all that apply)

a. Elluminate
b. Web Ex
c. Skype
d. Oovoo
d. Microsoft Live
e. Wimba
f. Adobe Connect
g. Other, please specify

18. How does the ESA fund the online professional development opportunities provided teachers? (Please select all that apply)

a. ESA pays from operating funds and charges no fee for teacher participation.
b. Individual teacher pays full fee for participation.
c. School district pays full fee for teacher participation.
d. Other entity pays full fee for teacher participation (e.g, state funding, federal grant, private business).
e. School district pays partial fee for teacher participation, with other part paid by teacher.
f. School district pays partial fee for teacher participation, with other part paid by another entity (e.g., state funding, federal grant, private business).
g. College or university pays partial fee or waives portion of teacher tuition
h. State or national professional education organization pays full fee for teacher participation.
i. U.S. Department of Education or other federal grant source pay full fee for teacher participation.
j. Congressional earmark funds for certain programs and services contained in the legislation pay full cost of teacher participation costs.
k. ESA negotiates reduced price licensing agreement with vendor and makes set number of licenses available to member districts at no cost (district buys additional licenses if desired).

l. Other, please specify

Part D. Evaluation of Online PD

19. How do you measure the effectiveness of online pd offered teachers by the ESA? (Please select all that apply)

a. Do not measure effectiveness of online pd
b. Measure level of participation
c. Measure degree of satisfaction of participants
d. Measure quality in relation to a standard
e. Measure cost savings of online pd compared to other pd delivery methods
f. Measure change in teacher knowledge
g. Measure change in teacher classroom practices
h. Measure impact on student learning
i. Other, please specify

20. On a scale of 1 to 10, how satisfied are you with the quality of online pd opportunities currently offered or made available to teachers by your ESA?

Absolutely   1   2   3   4   5   6   7   8   9   10   Absolutely
dissatisfied   satisfied

21. Based on experiences of your ESA in making online pd available to school districts, to what extent is each of the following a barrier in expanding online pd to teachers?
(Please rate each item)

a. Attracting necessary funding
Not at all   A little extent   Some extent   Great extent   Very great extent

b. Eliminating technology incompatibility issues in school districts
Not at all   A little extent   Some extent   Great extent   Very great extent

c. Determining best mode of technology to use in offering online pd
Not at all   A little extent   Some extent   Great extent   Very great extent

d. Providing teachers with adequate Internet connectivity at home
Not at all   A little extent   Some extent   Great extent   Very great extent

e. Identifying high quality, sustained online pd needed by teachers
Not at all   A little extent   Some extent   Great extent   Very great extent

f. Building interest among teachers who want traditional pd (e.g., face-to-face workshop)
Not at all   A little extent   Some extent   Great extent   Very great extent

g. Overcoming teacher perceptions of no time to participate during school day
Not at all   A little extent   Some extent   Great extent   Very great extent

h. Overcoming inadequate technology skills among teachers
Not at all   A little extent   Some extent   Great extent   Very great extent

i. Gaining support among school district leadership that online pd is effective
Not at all   A little extent   Some extent   Great extent   Very great extent

j. Gaining support among teachers that online pd is effective
Not at all   A little extent   Some extent   Great extent   Very great extent

k. Building ESA personnel capacity to facilitate online pd opportunities
Not at all   A little extent   Some extent   Great extent   Very great extent

l. Designing successful ESA marketing practices to promote online pd
Not at all   A little extent   Some extent   Great extent   Very great extent

m. Determining what online pd promoted by vendors works best to improve teaching and student learning
Not at all   A little extent   Some extent   Great extent   Very great extent

n. Other: Please specify barrier and provide rating using the previous scale.
Not at all   A little extent   Some extent   Great extent   Very great extent

22. High quality professional development is embedded and "sustained" over a time period adequate for teachers to increase knowledge and skills, rather than a one shot event. Please describe below how your ESA addresses this "sustained" quality feature in online pd offerings.

Part E. Future Plans

23. Does the ESA plan to offer or continue offering online pd to teachers? Yes   No

24. Does the ESA have a formal process for identifying what online pd to offer? Yes   No   (If yes, please explain)

25. In the past, what has proven to be the best way for the ESA to learn about a new online pd opportunity that the ESA then offered or made available to teachers?

26. In the current economic climate, what is the most viable business model or strategy your ESA has found to sustain online pd offerings?

27. Please make any additional comment about online professional development that you think important for explaining the status of online pd in your ESA.