American Institutes for Research

Study to Measure the Delivery of Services in Accordance with the Individualized Education Programs of Students with Disabilities in the Los Angeles Unified School District

Final Report

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Submitted to:

Office of the Independent Monitor
Los Angeles Unified School District

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Executive Summary

Overview

The purpose of this study is to measure the delivery of special education services in the Los Angeles Unified School District (LAUSD or the "District") in accordance with students' Individualized Education Programs (IEP) during the 2003-04 school year. The Individuals with Disabilities Education Act (IDEA) requires that all eligible students with disabilities have an IEP, which specifies special education services[1] that a student needs to progress towards instructional goals. Students in special education may receive a broad array of services according to their IEPs. For most services, the IEP specifies the frequency and duration with which the service is to be provided. This study develops indicators of the extent to which each of these required services is actually being provided to students with disabilities throughout the District in accordance with their IEPs. The results will be used to develop a performance outcome in the area of service delivery for LAUSD as required by the Modified Consent Decree, a class action settlement requiring improvements in a number of aspects of the District's special education system.

Questions answered by this study include:

- How accurately does the District special education database (Special Education Student Assignment Center) capture information on student services in their IEPs?

- Are students receiving services specified in their IEPs?

- Are students receiving the services with the frequency (e.g., twice a week) and duration (e.g., 30 minutes per week) specified in the IEP?

To address these questions, the American Institutes for Research (AIR), working with the Office of the Independent Monitor (OIM) and the Program Evaluation and Research Branch (PERB) of LAUSD, and with the cooperation and assistance of the Division of Special Education and thousands of service providers, teachers, and administrators in hundreds of schools, conducted two comprehensive data collections. First, the OIM collected the IEPs of special education students based on a sample of 3,800 students, as well as thousands of corresponding service provider logs used to track the delivery of services. These were delivered to AIR for data entry and tracking. Second, AIR drew a sub-sample of 410 students to conduct programmatic audits through site visitation for the purpose of confirming the delivery of services recorded in the IEPs. The goal of this two-stage analysis was to develop a baseline population estimate of service delivery for students with disabilities in LAUSD during the 2003-04 school year. A complementary

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[1] Please refer to U.S. Department of Education (1999), Code of Federal Regulations (CFR) Sections 300.24 and 300.6, for descriptions of related services and assistive technology services to be made available to eligible students with disabilities.

goal was to develop baseline estimates of service delivery by service type and disability category.

Summary of Findings

As noted, as one component of this analysis, AIR compared the provider service logs used to track the delivery of services to the information on services in the students' IEPs. The table below summarizes findings on the degree of agreement between information on the students' IEPs and information on service provider logs by category of disability (Columns A and B).[2] It also presents data regarding the degree of agreement between the service information found on IEPs as compared to service provision as observed on site (Columns C and D). The bottom row of this table shows the district-wide population estimates derived from these samples.

Table 1: IEP-Log and IEP-Site Visit Service Analyses, by Disability Category

	A	B	C	D
	IEP-Log Service Agreement		**IEP-Site Visits Service Agreement**	
Disability Category	% of services for which there was evidence of service provision	No. of Service Obs	% of observed services provided	No. of Service Obs
Deaf/Hard of Hearing	77.4%	474	73.5%	34
Multiple Disability/Deaf-Blind	75.4%	549	90.7%	43
Mental Retardation	69.6%	401	92.8%	28
Autism	68.1%	514	78.2%	32
Speech and Language Impairment	65.8%	313	81.3%	32
Visual Impairment	65.8%	439	75.5%	45
Orthopedic Impairment/Traum. Brain Injury	60.6%	700	73.9%	46
Other Health Impairment	55.0%	387	81.8%	33
Emotional Disturbance	39.3%	308	80.0%	20
Specific Learning Disability	33.8%	231	92.6%	27
Overall Population Estimate	**42.7% <1>**	**4,316**	**89.0% <2>**	**340**

<1> The 95 percent confidence interval for the population estimate using the IEP-log service agreement rates is 37.0 to 48.4 percent.
<2> The 95 percent confidence interval for the population estimate using the IEP-site visit service agreement rates is 78.0 to 98.3 percent.

- Converting these findings to a district-wide population estimate, the percentage of services for which there is evidence of service provision is 42.7 percent. This means that available data provide no evidence of service provision for a majority of students with disabilities in LAUSD (Col. A).

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[2] For the purpose of these analyses, the 21 disability and 22 service categories in the SESAC database were consolidated into 10 and 12 categories, respectively. The primary rationale for this consolidation was to minimize the number of low incidence categories containing small numbers of students, thereby allowing for meaningful analyses.

- By category of disability, the rate of service agreement ranges from a high of 77.4 percent for Deaf and Hard of Hearing to a low of 33.8 percent for students with Specific Learning Disability (SLD, Col. A).

- The extent to which the population estimate of 42.7 percent is driven by the SLD data is worthy of note. Excluding SLD, the population estimate of IEP to log service agreement is 63.7 percent.

- The lower number of observations in the site visits (Col. D), and the fact that not all services are well suited to observational monitoring, prevent site visit data from being generalized to the overall population with confidence. However, the overall rate of agreement between IEPs and services provided appears much higher (89.0 percent, Col. C).

- The site visitation data also help in interpreting the high degree of discrepancy between IEP and provider logs. For example, for the most predominant category of special education students, those with Specific Learning Disability (SLD), the rate of log agreement (33.8 percent) is much lower than what appears in regard to actual service provision (92.6 percent).

- A comparison of these two findings suggests that much of the low IEP to service log agreement observed for this category of students (33.8 percent) is more likely attributable to poor quality logs than gaps in service.

Table 2 summarizes agreement by type of service. Columns A and B present the agreement rates between service logs and IEPs. Columns C and D present rates of agreement between observational data derived from site visits and IEPs.

Table 2: IEP-Log and IEP-Site Visit Service Analyses, by Service

	A	B	C	D
	IEP-Log Service Agreement		**IEP-Site Visits Service Agreement**	
Service Category	% of services for which there was evidence of service provision	No. of Service Obs	% of observed services provided	No. of Service Obs
Deaf and Hard of Hearing	82.7%	342	72.7%	33
Occupational Therapy	77.0%	382	81.1%	37
Language and Speech	75.5%	1,034	82.2%	67
Visual Impairment Services	74.2%	252	80.6%	36
Adaptive PE	68.9%	1,053	86.5%	59
Physical Therapy	62.0%	137	77.2%	22
Non-Public Agency Services	55.0%	40	n/a	
LRE Services	50.0%	214	63.2%	19
Mental Health Services	41.0%	332	76.3%	21
RSP	22.6%	530	93.6%	46
Total		**4,316**		**340**

- Similar to Table 1, a large range of variation is found, with the IEP to log agreement being the lowest for RSP services (22.6 percent) and highest for Deaf and Hard of Hearing services (82.7 percent, Col. A).

- The site visitation sample is much smaller than the IEP to log analysis, and therefore less confidence can be placed in the results. However, a comparison of these two rates provides insight into the rates of agreement observed in Column A. For example, for RSP, the logs (22.6 percent) are much less likely to agree with what is shown in the IEP than the observed provision of service (93.6 percent agreement). For Deaf and Hard of Hearing, the opposite seems true, i.e. the service logs are more likely to reflect the IEP requirements (82.7 percent) than what is actually observed on site (72.7 percent agreement), possibly suggesting that in this case the tracking data may be somewhat overstating what is actually being provided.

- A lower level of statistical confidence is associated with Non-Public Agency (NPA) services due to the much lower number of cases in the IEP to service log analyses.

Table 3 summarizes the data in regard to the frequency of service (Col. A) and duration of service (Col. C). Both analyses are based on the IEP to service log analyses. The frequency analysis is based on agreement regarding the rate at which a service should be provided. For example, if two sessions per week of speech therapy are specified in the IEP, are they provided at least at this level of frequency? The duration analysis refers to agreement between the length of time specified for each instance of service, as specified in the IEP, and what is recorded in the service log. For example, if 60 minutes of OT service is required every week, does the service log provide clear evidence that OT services were provided for at least this length of time?

- For both the frequency and duration analysis, the number of observations is sometimes too low to allow district-wide generalization (the general cut-off in this regard is cases with fewer than thirty observations).

Table 3: IEP-Log Frequency and Duration Analyses

	A	B	C	D
	IEP-Log Frequency Agreement		**IEP-Log Duration Agreement**	
Service Category	% of services with monthly frequency at least equal to the IEP	No. of Service Obs	% of services with monthly duration at least equal to the IEP	No. of Service Obs
Non-Public Agency Services	86.4%	22	100.0%	22
Adaptive PE	75.9%	648	69.0%	630
RSP	71.0%	31	74.2%	31
School Mental Health Services	59.6%	104	71.8%	103
Deaf and Hard of Hearing	53.0%	200	62.2%	90
Language and Speech	48.1%	680	52.8%	659
Visual Impairment Services	48.1%	156	60.0%	20
Physical Therapy	46.2%	65	52.7%	55
Occupational Therapy	43.7%	254	59.4%	239
LRE Services	35.0%	40	44.4%	27
Total		**2,200**		**1,876**

Conclusion

As noted above, we believe the best overall estimate of special education service provision in LAUSD is that evidence of provision through service logs was found for 42.7 percent of all services specified in students' IEPs. It is not possible to say to what extent this relatively low rate of service agreement is the result of poor evidence (i.e. inadequately maintained or missing logs) or the failure to deliver services. However, comparing these findings to the site visit data suggests that for most services the more predominant problem is tracking. Still, it is unlikely that the rate of service delivery presented in the site visit results represents the true rate of service delivery since not all services are well suited for observational monitoring. The true rate of service delivery will likely lie between the results of the log analysis and the site visit data analysis.

While the site visit data may seem to mitigate the high rate of discrepancy between what is required by IEPs and what is shown in the logs, it should be noted that maintaining accurate records of service is also important. To the extent that service logs can be standardized, less reliance will be placed on the time-intensive and difficult practice of direct service observation.

In regard to outcome indicators, the most likely benchmark measures will come from IEP-log agreement. These analyses have sufficient data to provide the power needed for district-wide comparisons over time.

In conclusion, the overall gaps in service provision may not be as great as that indicated by the relatively low IEP to service log agreement rate of 42.7 percent. In this sense, the baseline estimates of compliance provided in this report are probably conservative. From a recording perspective, however, there is little evidence to suggest that the overall rate of

agreement is not as problematic as reported. As such, the overall IEP-service log agreement estimate provided in this report (42.7 percent), as well as the more detailed estimates by category of disability and by type of service, appear to be reasonable baseline estimates.

Chapter 1: Introduction

Purpose of Study

This is the final report for the *Study to Measure the Delivery of Special Education Services in Accordance with the Individualized Education Plans (IEPs) of Students with Disabilities within the Los Angeles Unified School District (LAUSD or the "District")*. The results of this research will be used to establish performance standards in the area of special education service delivery for LAUSD as required by the Modified Consent Decree.

Background Information

The Los Angeles Unified School District is the second largest school district in the United States. Spanning 704 square-miles of Los Angeles County, it is comprised of eleven local districts and contains approximately 959 schools and educational centers. LAUSD educates over 905,020 students each year. As of December 2003, approximately 85,500 of these students were in special education.

Under the federal Individual with Disabilities Education Act (IDEA), all children, regardless of disability, must have access to a "free and appropriate public education" in the least restrictive environment. In 1993, the Americans Civil Liberties Union (ACLU) Foundation of Southern California filed a class action lawsuit on behalf of students with disabilities, alleging that LAUSD was in violation of the IDEA.[3]

At the time of the interim settlement, consultants approved by both parties conducted a ten-month comprehensive review of the District's special education program. The review concluded that LAUSD suffered from a "pervasive, substantial and systemic inability to deliver special education services in compliance with special education law."[4] After reviewing these findings the parties entered into a settlement known as the Chanda Smith Consent Decree. As part of the settlement, a Decree Administrators Office (CDA) was established with the responsibility for developing a series of plans to improve the District's special education system.

In 2001, dissatisfaction with the progress of the Chanda Smith Consent Decree prompted the parties to resume negotiations in an effort to revise the settlement. In 2003, they agreed upon a Modified Consent Decree (MCD) that replaced the Chanda Smith plans with a series of quantifiable outcomes that the District agreed to meet by June 2006. After the negotiations, a number of additional outcomes were left pending until baseline data could be obtained.

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[3] *Chanda Smith v. Los Angeles Unified School District*
[4] *Chanda Smith v. LAUSD*, Case No. CV 93-7044-LEW, Consultants' Report, October 1995. Louis Barber, Ph.D., Mary Margaret Kerr, Ed.D.

One of these pending outcomes, Outcome 13, required the Office of the Independent Monitor (OIM) to contract with an Independent entity to measure the delivery of special education services in LAUSD. The full text of this outcome is reproduced below:

Outcome No. 13: Delivery of Services[5]

The Independent Monitor, in consultation with the parties, shall establish a performance outcome to measure the District's delivery of services in accordance with a child's Individualized Education Programs. The performance outcome will seek to determine whether the District is implementing Individualized Education Programs in substantial compliance with the law. In order to establish and monitor this outcome measure, the following shall occur:

a. The baseline criteria and subsequent benchmarks shall be based on scientific sampling techniques that gather data representative of the disability population in the District.

b. The Independent Monitor shall, with the assistance of one or more entities and with input from the District's Program Evaluation and Research Branch, design the sampling methodology to establish criteria and subsequent benchmarks. The chosen entity will also verify the validity of the sampling technique as well as the accuracy of the findings during the first year. Such entity shall be chosen by the Independent Monitor.

c. In subsequent years, the District shall conduct these studies in accordance with the design. The Independent Monitor shall verify the accuracy of the findings. Any modifications to the study design must be approved by the Independent Monitor.

In accordance with Outcome 13, a Request for Qualifications (RFQ) for this study was released in August 2003, to which AIR responded and was awarded a contract.

Description of Study

As noted in the Modified Consent Decree, the purpose of this study was to measure the District's delivery of services in accordance with students' Individualized Education Program during the 2003-04 school year. The IDEA requires that all eligible students with disabilities have an IEP, which specifies special education services[6] that a student needs to progress towards instructional goals. Students in special education may receive a broad array of services according to their IEPs, and this study develops indicators of the extent to which these required services are actually being provided.[7] Questions answered include: How accurately does the District special education database capture student service information? Are students receiving the full mix of services specified in their

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[5] Modified Consent Decree, Section 6.I 57(a-c).
[6] Please refer to U.S. Department of Education (1999), Code of Federal Regulations (CFR) Sections 300.24 and 300.6, for descriptions of related services and assistive technology services to be made available to eligible students with disabilities.
[7] See Appendix B for a glossary of special education services.

IEPs? Are they receiving them in the frequency (e.g., twice a week) and duration (e.g., 30 minutes per week) as specified in the IEP?

In LAUSD, much of the service information from student IEPs is recorded in the Special Education Student Assignment Center (SESAC) database. This is the database which the District sends on an annual basis to the California Department of Education. One important record check included in this study is the extent to which student-level service information is fully and accurately reflected in the SESAC data.

In regard to actual service provision, special education providers use service logs to document services as they provide them. The logs should contain information about the service provided, who received them, at what time, and for what duration. Another important component of this study is to compare the service requirements specified for each student in relation to what is recorded in the logs of their service providers. To what extent do these logs contain evidence that the sample of students included in this study received the services listed in their IEPs at required levels of frequency and duration? Beyond checking logs as important indicators of service provision, this study also included visits to a sample of schools throughout LAUSD to witness and record the actual provision of services.

This report presents three approaches to measuring the District's delivery of services in accordance with students' IEPs during the 2003-04:

1) The degree of discrepancy between services specified on students' IEPs and school data from the Special Education Student Assignment Center (SESAC) database.

2) The degree of discrepancy between these IEP data and data on service provider logs.

3) The degree of discrepancy between these IEP data and the results of site visits that confirm service delivery to students in a subsample within our sample population.

These analyses are important because they provide a multi-dimensional view for evaluating special education service delivery within the District. To what extent is the information from the paper versions of the IEPs properly transferred to the master SESAC database? To what extent is there evidence that these required services are actually being provided by the District as evidenced by service provider logs, as well as through direct observation on site? Both of these measures of actual service provision are important because the logs are designed to serve as accurate records of what was actually provided. In addition to actual service provision, it is important that the accountability records documenting provision be accurate and comprehensible to outside reviewers. In addition to these analyses, the study sought to develop a methodology and to establish a set of procedures to conduct the discrepancy analyses described above. These methods will be used by the District for subsequent years of analyses.

To our knowledge, this type of complex and logistically difficult project, systematically recording data for over 3,000 IEPs and personally witnessing over 300 special education services in schools in a district as large and geographically dispersed as LAUSD, has never before been attempted. Because IEPs and service logs are variable documents subject to ongoing change, they are generally not suited for systematic and standardized conversion into analyzable data. The logs of LAUSD service providers take on a variety of formats and employ an array of diverse coding conventions. In addition, it appears that a number of special education services in LAUSD are "flexibly" provided such that the corresponding service logs are either missing or do not include such specifics as the duration and frequency of service.

Despite these challenges, nearly 3,000 IEPs were reviewed, coded, and entered into an analyzable database, and 340 special education services are included in the site visitation data. In addition, we have developed a set of methodological practices, interpretive criteria, and analytical methods to allow subsequent years of data collection.

At the same time, a number of weaknesses in regard to IEP documentation and maintenance, the systematic recording of service frequency and duration information on service logs, and in relation to direct service observation were uncovered. For example, for over 36 percent of the services observed in our IEP sample, appropriate service logs were missing. The logs that were provided were difficult to read and often lacked critical information. The degree of discrepancy between the services shown on the IEPs we were given and the logs provided is generally high. Due to the data problems cited above, these estimates of discrepancy between the services required (IEPs) and those provided (service logs) are likely higher than reality. Thus, some of the discrepancies we identified reflect some unknown combination of gaps in service and gaps in data. In this report we will discuss both these discrepancies and the limitations in the available data.

Confidentiality

Under the Modified Consent Decree, the Office of the Independent Monitor is entitled to "access to all District records and data, including student records."[8] For the purposes of this study, AIR, as an agent of the OIM, was provided access to student information for the limited number of the students in the scientific sample. Strict measures were taken to protect student confidentiality. All members of the research team, including the data entry team and site visitation team, signed affidavits, which prohibited the disclosure of any confidential information obtained during the study.[9] Hard copies of the IEPs and service provider logs were maintained in locked cabinets, and only staff with signed affidavits of nondisclosure were authorized access the materials. All databases containing student information were stored on AIR's password-protected computer network. All reporting information based on these data, all printouts, tabulations, figures, and text were edited to remove possible disclosure of individually identifiable information. At the conclusion of this study, all confidential documents will be destroyed.

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[8] Modified Consent Decree, Section 2.16.
[9] See Appendix M for sample affidavit.

Study Approach

The AIR research team, working with the OIM and LAUSD, conducted two comprehensive data collections. First, the OIM, with the assistance and cooperation of the Division of Special Education, collected the IEPs of special education students within our sample, as well as corresponding service provider schedules and tracking logs and delivered them to AIR. The sampling and data entry methodology for this component is explained in detail in Chapter 2.

Second, AIR conducted site visits for a subsample of students in order to confirm the delivery of services denoted on provider logs and schedules. This required hiring and training a team of site visitors to visit schools in order to confirm the delivery of specific services noted on student IEPs.

The team's goal was to complete thirty unique student observations for each of ten primary disability categories and nine service types. At the end of the two-month site visitation period, a total of 270 unique student observations had been completed, somewhat short of the goal specified above. Chapter 2 describes the site visit component of the study in more detail.

Project Timeline

Project work began on September 15, 2003, with AIR submitting a revised work plan to the OIM in October. Soon thereafter, the OIM conducted a pilot study to determine the response time of schools and providers in submitting IEPs and logs. At the end of October, AIR drew a sample of 3,800 students from the population of students with disabilities in LAUSD. In November 2003, the OIM requested the IEPs and service logs for each of these sample students. The deadline by which schools and providers could send the documents was December 5, 2003.

The study team was provided 15 completed IEPs and 8 logs from the pilot to assist in designing a database and data entry instructions for inputting IEP and log information. During the data entry process, the database was modified to more appropriately record the information. These changes resulted in three versions of the database, which were merged for analysis after data entry.

Training of data entry assistants took place on November 20. The majority of IEP and log data entry took place in December. In early January 2004, the research team provided OIM with a list of students for whom the IEP was "missing" (e.g., not entered into the database). Because the initial request for IEPs went to the school location recorded in the SESAC database, students who had changed schools might have been excluded from the analysis. However, using information provided by the former schools, the team maintained a list of students who had moved, along with their new schools, if known. These new locations were merged with the list of "missing" IEPs, which allowed the OIM to re-request the IEPs from these schools.

In mid-February, we provided the OIM with a list of students for whom we had IEPs but no logs. These documents were also re-requested. The remaining data entry was completed mid-March, accumulating in IEP data for 2,997 students and log data for 2,094 students.

In mid-January 2004, AIR staff conducted two days of pilot visits to schools in Los Angeles. After the student sample for the site visits was drawn, initial training of site visitors took place at the OIM on February 6. Two additional training sessions occurred on February 13 and March 8. The site visitation period lasted 10 weeks, concluding on April. The remainder of April was spent conducting discrepancy analyses and writing the Final Report.

Project Deliverables

Throughout the study, the research team has maintained close contact with the OIM and the LAUSD's Program Evaluation and Research Branch (PERB) to provide updates on the study's progress and to ensure the transferability of the methods to the District. In addition to this final report, the team submitted monthly reports that outlined progress, decisions/changes made regarding the methodology, as well as problems and proposed resolutions.

At the close of our study, we will provide all procedures, forms, and analysis programs, to the District. In addition, the research team will provide training to district personnel on data collection methods and analysis procedures to allow replication in subsequent years.

Overview of the Report

The remainder of this report consists of three chapters. Chapter 2 reviews the sampling design, IEP and provider log data collection and entry, and the site visit data collection. It discusses some of the issues uncovered in attempting to carry out the methodology, and how they were resolved. Chapter 3 presents the findings about the degree of discrepancy between students' services as required on IEPs and the SESAC data; provider logs; and site visit service observations. Along with overall population estimates for the IEP-log service discrepancies, the chapter also provides analyses on the provision of Individual Transition Plans, services from temporary support aides, assistive technology devices, and special transportation. The report concludes with Chapter 4, which provides summaries of the results and discusses the use of these data for establishing benchmarks for service delivery in LAUSD. It closes with recommendations regarding District maintenance of data and a brief discussion of issues in regard to service delivery.

Chapter 2: Methodology

This chapter contains sections on sampling design, IEP and provider log data collection and entry, and the site visit data collection. It reviews methodological procedures, some of the issues uncovered in attempting to carry them out, and how they were resolved.

Sampling

The design consisted of two consecutively-drawn random samples. The first stage sample consisted of 3,800 students and was drawn from the SESAC database.[10] The IEPs of all the students in this sample were requested from schools.

For the site-visitation stage, we drew a sub-sample of 380 students (from the first-stage sample of 3,800). The goal of this sample was to compare the service data in the IEPs of these students to information on service provision obtained during site visits.

Both samples included an oversample of 15 percent to allow for the relatively high student transiency rate in the district. The target sample sizes were 3,300 and 330, respectively.

The main objective was to achieve representative samples of the overall population of students with disabilities in LAUSD. This would allow us to make statements that could reasonably be applied to the full population of special education students in the district, i.e. to measure the delivery of services to this population with limited statistical error. Besides this primary goal, these samples were also designed to allow analyses by category of disability and by type of service. The ability to report data in these different ways is necessary to allow both overall and specific questions to be answered. For example, how reliably are services recorded and provided to individual populations of students, e.g. those with Specific Learning Disability as opposed to Mental Retardation. How reliably are services recorded and provided by individual type of service, e.g. how reliable do Language and Speech services appear to be in relation to Occupational Therapy.

For the purpose of these analyses, the 21 disability and 22 service categories in the SESAC database were consolidated into 10 and 12 categories, respectively. The primary rationale for this consolidation was to minimize the number of low incidence categories containing small numbers of students, thereby allowing for meaningful analyses. Disability categories were combined that were believed to be generally similar in nature such as Blind and Partially Sighted or Deaf and Hard of Hearing. These categories also receive a similar array of services. Also similar services such as Pupil Counseling and School Mental Health were combined into a single category.

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[10] This figure was drawn from the October SESAC database. The count for the database at that time was approximately 78,000 students. This figure excluded students ages 0-4 and non-public school students.

These kinds of decisions, as well as the overall sampling strategy, were only decided after full discussion with OIM. The mapping of SESAC eligibility-study disability and service category groups are shown in Tables 2.1 and 2.2. Definitions of these categories of disability and types of service are found in Appendices A and B.

Table 2.1: Mapping Eligibility – Disability Category

Disability Categories Sampled	Abbreviation	SESAC Eligibility Codes
Autism	AUT	Autistic
Deaf/Hard of Hearing	DHH	Deaf
		Hard of Hearing
Emotional Disturbance	ED	Emotionally Disturbed
Mental Retardation	MR	Mentally Retarded
Multiple Disability/Deaf-Blind	MD/DB	Multiple Disabilities - Generic
		Multiple Disabilities - Orthopedic
		Multiple Disabilities - Hearing
		Multiple Disabilities - Vision
		Deaf/Blind
Orthopedic Impairment/ Traumatic Brain Injury	OI/TBI	Orthopedically Impaired
		Traumatic Brain Injury
Other Health Impairment	OHI	Other Health Impaired
		Developmentally Delayed
		Developmentally Impaired
		Established Medical Disability
Specific Learning Disability	SLD	Specific Learning Disability
Speech and Language Impairment	SLI	Aphasic
		Language/Speech Impaired
Visual Impairment	VI	Blind
		Partially Sighted

Table 2.2: Service Categories Groupings

Study Service Categories	Abbreviation	SESAC Service Categories
Adaptive PE	APE	Adaptive PE
Career and Transition Services	CAT	Career and Transition Services
Deaf/Hard of Hearing	DHH	Audiology
		Deaf/Hard of Hearing Itinerant
Language and Speech	LAS	Language/Speech
		Nonpublic Agency – Speech
		LAS – 27
		Extended Day Language/Speech
		Preschool-Kindergarten Itinerant
Least Restrictive Environment	LRE	Least Restrictive Environment Counselor
		Inclusion Facilitator
Non-Public Agency Services	NPA	Non-Public Agency Services
Occupational Therapy	OT	Occupational Therapy
Physical Therapy	PT	Physical Therapy
Resource Specialist	RSP	Resource Specialist Services
		Resource Program - Itinerant
School Mental Health	SMH	Pupil Counseling
		School Mental Health
Special Nursing	Nursing	Special Nursing
		Home/Hospital
Visual Impairment	VI	Blind/Partially Sighted Itinerant
		Vision Services and Therapy
		Orientation Mobility for Blind

For the larger sample of 3,800 students, a quota approach was used to provide adequate representation across the full range of disabilities and individual services. As shown in Table 2.3, 380 students from each disability category were randomly selected. This strategy over-samples low-incidence disabilities in relation to their relative frequency in the overall population and captures the higher frequency of services that are delivered to students with low incidence disabilities. In this way, enough observations within each disability and service category are obtained. This increases the degree of confidence that can be placed in the estimates of service discrepancy by category of disability and by type of service.

Tables 2.4 to 2.6 provide descriptive information on the sample, including the school-level and geographic distribution of students and the distribution of services in the overall population and first-stage sample.

Table 2.3: Distribution of Disabilities in the Overall Population and First-Stage Sample

Disability Categories	Population (SESAC)	Percent	First-Stage Sample
Autism	3,419	4.3%	380
Deaf/Hard of Hearing	1,753	2.2%	380
Emotional Disturbance	1,856	2.4%	380
Mental Retardation	4,532	5.7%	380
Multiple Disability/Deaf-Blind	1,556	2.0%	380
Orthopedic Impairment/Traumatic Brain Injury	1,188	1.5%	380
Other Health Impairment	5,038	6.4%	380
Specific Learning Disability	50,973	64.6%	380
Speech and Language Impairment	8,036	10.2%	380
Visual Impairment	502	0.6%	380
Total	**78,853***	**100%**	**3,800**

* This excludes children ages 0-4 and non-public school students.

Table 2.4: Distribution of Students by School Level in the Overall Population and First-Stage Sample

Type of School	Observations in the Population	Percent	Observations in the Sample	Percent
Early Education Centers	1,016	1.3%	158	4.2%
Elementary Schools	36,481	46.3%	1,709	45.0%
Middle Schools	19,632	24.9%	619	16.3%
High Schools	17,353	22.0%	609	16.0%
Special Centers	4,371	5.5%	705	18.6%
Total	**78,853**	**100%**	**3,800**	**100%**

Table 2.5: Distribution of Students by District in the Overall Population and First-Stage Sample

District	Observations in the Population	Percent	Observations in the Sample	Percent
A	7,748	9.8%	368	9.7%
B	8,485	10.8%	409	10.8%
C	8,939	11.3%	471	12.4%
D	6,810	8.6%	307	8.1%
E	7,760	9.8%	405	10.7%
F	6,073	7.7%	266	7.0%
G	7,061	9.0%	368	9.7%
H	7,029	8.9%	305	8.0%
I	4,753	6.0%	161	4.2%
J	6,219	7.9%	229	6.0%
K	7,670	9.7%	401	10.6%
SP	306	0.4%	110	2.9%
Total	**78,853**	**100%**	**3,800**	**100%**

Table 2.6: Distribution of Services in the Overall Population and First-Stage Sample

Type of Service	Observations in the Population	Percent	Observations in the Sample	Percent
Adaptive PE	7,727	10.1%	1,028	19.8%
Career and Transition Services	1,191	1.6%	62	1.2%
Deaf and Hard of Hearing Services	2,173	2.9%	389	7.5%
Language and Speech	17,735	23.3%	1,158	22.2%
LRE Services	1,379	1.8%	258	5.0%
Non-Public Agency Services	1,478	1.9%	165	3.2%
Occupational Therapy	3,612	4.7%	416	8.0%
Physical Therapy	603	0.8%	130	2.5%
RSP	32,262	42.4%	681	13.1%
School Mental Health Services	5,933	7.8%	379	7.3%
Special Nursing	1,430	1.9%	242	4.6%
Visual Impairment Services	619	0.8%	297	5.7%
Total	**76,142**	**100%**	**5,205**	**100%**

For the site visitation sample, the sampling strategy was somewhat different. With a smaller sample, it was more difficult to satisfy all the required characteristics (i.e., assuring enough students to support the cross-disability and cross-service analyses). To achieve this, the sample was designed to include at least 30 students for each category of service and for each category of disability. Because services are not equally distributed across categories of disability, to simultaneously meet all these conditions, the original site visitation sub-sample of 380 was increased to 410 students. This is reflected in Table 2.5.

Also for the site visitation sample, the services were limited to those considered well suited to direct observation. These included: APE, DHH, LAS, LRE, OT, PT, SMH, VI, and RSP.[11] Nursing services were excluded from the observations due to the difficulty in determining the provision of these services at specific times. Nonpublic agency services were also excluded from the site visit sample, as there were not enough records to generate useful estimations. Tables 2.7 and 2.8 show the distribution of disabilities and services in this second-stage sample. Note that it was necessary to include more students with Orthopedic Impairment/Traumatic Brain Injury in this sample to also ensure full representation (i.e., at least 30 students) across all of the categories of service.

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[11] Career and Transition services were excluded from both the site visitation sample, as well as the IEP-log analyses, as these services are not tracked with provider logs.

Table 2.7: Second-Stage Sample, by Disability

Disability	Second-Stage Sample
Autism	40
Deaf/Hard of Hearing	40
Emotional Disturbance	40
Mental Retardation	40
Multiple Disability/Deaf-Blind	40
Orthopedic Impairment/Traumatic Brain Injury	50
Other Health Impairment	40
Specific Learning Disability	40
Speech and Language Impairment	40
Visual Impairment	40
Total	**410**

Table 2.8: Second-Stage Sample, by Service

Type of Service	Second-Stage Sample
Adaptive PE	30
Deaf and Hard of Hearing Services	30
Language and Speech	30
LRE Services	30
Occupational Therapy	30
Physical Therapy	30
RSP	30
School Mental Health Services	30
Visual Impairment Services	30
Total	**270**

IEP and Provider Log Data Collection and Data Entry

The basic outline of this phase of the study was provided in Chapter 1 in the discussion of the study timeline. Below, we briefly describe some of the issues associated with log and IEP collections, their implications for data quality, and how they were resolved. The compressed timeline for this study resulted in the team laying the groundwork and learning about the idiosyncrasies and problems of the IEPs and provider logs during the data entry process. Accordingly, database development, as well as the data entry instructions, continued to be developed during the data entry process.

IEP Issues

- **Multiple IEPs** was a major unanticipated issue. To overcome this challenge, a general data entry rule was created that services would be added to the database if a second IEP listed those additional services. A service would not be removed unless a specific statement was made about the student exiting the service in an IEP. This procedure may have resulted in some services being erroneously

retained in the database, as we never received the IEP providing evidence of the termination of the services.

- **Amendment IEPs,** amendments to the original IEP, and computerized IEPs also arrived. These IEPs did not necessarily contain all information on a special education student and would often refer the data enterer to an earlier IEP. Furthermore, some IEPs were "partials" that were missing relevant pages or had blank pages. To resolve this, the team re-requested the full IEP.

- **Missed data entry steps** were also an issue. Because of the vast number of IEPs that were to be entered into the database in a short amount of time, the team devised data entry steps to extract relevant information in the most efficient way. This involved targeting specific pages and sections. This resulted in an oversight in regard to nursing services that had a significant impact on the data analysis for this service. Because these services were not found on the expected pages of the IEP (4, 5, and 8), and were later discovered to be on page 3, no discrepancy analyses could be conducted between IEP data and nursing logs. Instead, a discrepancy analysis was conducted between the SESAC database and the logs. Although imperfect, the SESAC database is intended to represent all services that appear in the students' IEPs. Therefore, as a proxy measure, an analysis between the SESAC and logs would provide some understanding of whether nursing services are provided in accordance with the IEP.

- **Questions arose about whether assistive technology devices** qualified as a technological device. If it did not, data enterers had to modify the IEP information. A list of acceptable assistive technology devices did not exist prior to the data entry, and we sought continual input from OIM regarding acceptable devices.

- **Temporary support assistants** (TSAs) created similar interpretive problems. No conclusive list existed before the data entry, and the list of acceptable terms for TSAs was continually updated.

- **Other problems** that occurred were illegible handwriting or poor copy quality. These IEPs were re-requested. There were also variations in recording the information (for instance, in some cases the frequency and duration for a service would be listed on page 4 as opposed to page 5), which required continually adapting the data entry instructions.

Provider Log Issues

A number of methodological issues also arose in relation to the IEP vs. service log discrepancy analysis. It appears that these logs have primarily been used as a personal record to be maintained by special education service providers to keep track of service delivery to specific students. As a result, these logs are not designed for accountability purposes or for massive data entry and analysis. Because they have not been extensively used for accountability purposes, they may lack vital information, e.g. length of service.

They also appear to be completely missing for a fairly high percentage (26.7 percent; see Table 3.6) of the sample students. Even when logs are available their lack of uniformity produced considerable challenges in converting their information into an analysis database. A discussion of some of these issues follows:

- **Multiple log formats** created a challenge in developing an analysis database. For example, logs can be categorized into three primary groups: schedule logs for which typically provided a weekly schedule of service but no record of provision of service; character logs which used characters to record the status of the sessions (e.g., periods, dashes, letters); and non-character logs. Schedule logs included RSP and LRE. Character logs included APE and Home-Hospital logs. These logs rarely provided the minutes of service provision, or any other details as to what took place during the session. Non-character logs included Language and Speech, Counseling, Deaf and Hard of Hearing, Audiology, Occupational Therapy, Physical Therapy, and Visual Impairment (including Orientation and Mobility). These logs generally recorded the dates of service and contained notes of what occurred. Some provided the session status and duration of service provision. (See Appendix P for a review of the quality of the logs.)

- **Log interpretation proved** difficult because of the wide range of characters used in the character logs. As we sought to minimize data entry judgment, we designed the database so that data enterers could enter the characters exactly as they appeared in the log. However, this created issues during the interpretation of the meaning of the characters during the analysis phase, particularly when the characters were not standardized across all services or indeed within a service.

  Interpretation was also an issue for non-character logs. While some non-character log formats had standardized session codes (e.g., numbers representing whether the session was complete, student absent, provider absent, etc.), others did not. Data enterers had to review the session notes to determine whether a service was provided; this interpretation was not always straightforward. Moreover, even when logs provided a status code or duration, the session notes were sometimes inconsistent. For instance, the status on a log may indicate that the session was complete or there were minutes recorded, even though the notes section showed that the student was absent or that it was a school holiday. In these suspect cases, the notes took precedence and the minutes were entered as zero in the database.

- **Frequency/duration of service was sometimes missing.** For example, many of the logs for RSP services were in the form of class schedules, showing the times during the day a student was supposed to go to the resource room. As such, they did not provide clear evidence of service provision on specific dates. These schedules were not entered into the study database; rather, the team maintained a list of students for whom RSP schedules were obtained. Missing frequency and duration was an issue for all log types.

- **LRE and nursing logs were not entered** into the database. LRE logs were not entered due to concerns about their validity. For nursing, IEPs did not typically provide frequency or duration for these services. While the lists of logs received were later incorporated in the discrepancy analysis to determine whether services recorded in the IEP are provided in some manner, the inability to extract frequency and duration limited additional analyses for these services.

- **Other log issues** included students off-track (i.e., not in school).[12] OIM requested that the providers send logs for a month when the student was in school. However, many logs arrived without any relevant information as they simply noted that the student was off track that month.

- **Illegible logs** were also a problem due to unclear handwriting or poor copy quality. These logs were re-requested.

Site Visit Data Collection

Verification of service delivery through school site visits involved a two-stage data collection strategy. First, the research team ascertained the day and time that all special education services for each student in the subsample were scheduled to be delivered. This was done by contacting the school or in rare instances for low frequency services, the service provider. Second, a member of the research team went to the school to observe the delivery of a particular services for each student.

Based on sample scheduling information for six students at five schools, AIR staff conducted pilot site visits in Los Angeles on January 15 and 16, 2004. Afterwards, the research team met with OIM staff to further consider how to conduct the site visits as effectively as possible. As a result, the research team was able to establish a more effective set of site visitation guidelines. For example, we determined that if either the provider or the student were on site at the time of a scheduled service, the observation would be considered valid. For a detailed description of the site visitation methodology, including protocols for observing services, please see the *Site Visitation Manual* provided to LAUSD.

Data Collection Instruments

To carry out the site visits, the research team developed a phone protocol, a schedule calling form, and an observation form.[13] The phone protocol was used to obtain service schedule information for students within the subsample. Site visitors contacted a school administrator, such as the Assistant Principal of Elementary Instructional Services (APEIS) or the school's "Chanda Smith Clerk."[14] Information obtained during the call

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[12] See the "School Tracks and Spring Break" section for discussion of calendar/track system in LAUSD.

[13] See Appendix E and F for form instructions and sample schedule calling and observation forms.

[14] The "Chanda Smith Clerk" is clerical staff assigned to LAUSD schools to assist with special education record-keeping and data entry.

was documented on the schedule calling form, whereas observation data on whether the service was provided was recorded on the observation form.

School staff sometimes did not know the exact times and dates of service delivery, and it was often difficult to reach the providers directly. In addition, some of the providers' schedules were extremely flexible, lacking clearly specified days and times to see the students in their caseloads. The research team developed a coding scheme for schedules that included a code for services for which the schedule was flexible. In some instances, the research team obtained contact information for providers of low frequency services in order to determine their schedule.

Access to the Schools

OIM facilitated access to the schools by sending a detailed memo explaining the study to the principal of every school in LAUSD. The schools received a copy of this memo on two occasions in the Fall 2003. A copy of the memo is included in Appendix C. Upon initial contact, some schools requested that the memo be resent before releasing any student information over the telephone, and some of the schools contacted OIM directly to ask questions about the study. Because schools raised concerns about releasing information over the telephone, a second memo was drafted to specify that the research team would be requesting student schedule information over the telephone. This memo included the names of the research team members. A copy of the additional memo is included in Appendix D.

Training of Site Visitors

AIR initially hired nine site visitors. Each site visitor was required to have a TB test within the past six months and a fingerprint and background check before entering the schools. A three-hour initial training for the site visitors was conducted on February 6, 2004. Two subsequent trainings were conducted on February 13 and March 8. Site visitor turnover made these additional trainings necessary.

Obtaining Student Schedule Information

The site visitors sought information from the schools about the days and times that special education services were provided to individual students. In our attempt to gain the most accurate information possible regarding service provision, there were often cases where the site visitors had to contact the individual service provider in order to obtain schedule information. Site visitors called schools and/or providers as needed to obtain information. However, despite these efforts, in some cases schedule information could not be obtained, and observations of services for students were not possible.

Information obtained through the phone call was recorded on the schedule calling form using a coding scheme. Schedules were coded from 1 to 5 to indicate their degree of flexibility, with code 5 representing a service that may be fixed on certain days and flexible on others. This information was then used to determine if it would be possible to observe the service. Instructions for completing the schedule calling form and a sample schedule calling form are included in Appendix E.

If the school staff indicated that the student was no longer receiving a particular service, the site visitor asked for the date of the IEP meeting resulting in this change. The research team then checked this information against the IEP on file in an attempt to determine the validity of the information. In most cases, the school's IEP was more recent than the one in the study file. We maintained a file of these occurrences. Schedule information was collected for all services, including those that would not be observed. This allowed the site visitors to mask the service they would be observing. It also permitted the research team to use this schedule information to determine back up observations in case the initial service was not observable.

Conducting an Observation

Once the student schedule information was obtained, site visitors went to the school to determine if the service was provided. Particular services for each student were selected so the research team could reach the target goal of 30 observations for each type of service provided. Site visitors arrived at the school 30 minutes prior to a scheduled service so that they would be certain to observe the time that both the provider and the student arrived for service.

Information about the observation was recorded on the observation form using a coding scheme.[15] For example, if the provider and student were present for the full amount of time scheduled for the service, the site visitor recorded a code "1" to indicate that the service session was completed as scheduled. If the student or provider were not present for the service, the site visitor tried to determine the reason, such as the student was in an assembly or the provider was in an IEP meeting. If neither the student nor the provider were present for the service, if scheduling information was incorrect, or if the site visitor had neglected to obtain known schedule conflicts that interfered with service provision, the site visitor returned for a second observation.

Management of Data Collection

Conference calls between the site visitors, the research team, and OIM staff were held each week in order to provide on-going guidance to and obtain feedback from the site visitors. AIR staff maintained close email and telephone contact with the site visitors. Site visitors also emailed information daily about students who had exited services or changed schools.

Throughout the data collection process, AIR staff carefully monitored the incoming data and the site visitors' progress. Given the goal of obtaining 30 observations by disability and service categories, the research team was required to reprioritize student observations if specific categories required additional observations.

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[15] See Appendix F for a full description of the service session codes and a sample observation form.

Site Visits: Methodological Constraints

These can be divided into two categories, imperfect information and logistical issues:

The information constraints were two-fold. First, some of the IEPs on which the observations were based were modified as the observations were taking place. This meant that the site visitors did not always have updated information on students. Second, in the initial stages of the data collection, the research team did not have the information necessary to determine that several service types do not lend themselves to direct observation.

The second category of constraints was logistical. These stemmed primarily from the short timeline in which to observe approximately 300 students. During the ten-week data collection, observation time was lost due to the multi-track school calendar used in LAUSD,[16] the occurrence of spring break,[17] and student standardized testing.[18] The short time frame also necessitated the hiring of site visitors within a limited amount of time.

The discussion of each of the constraints is followed by an explanation of how the research team addressed the challenge.

Evolving Nature of IEPs

The services associated with the students included in the site visit sample were obtained from their IEPs up to three months prior to the actual site visits. This was necessary given the amount of IEP data that had to be entered in order to draw the sample for the site visitations.[19] However, working with static IEP data created challenges for the site visits because the information was sometimes outdated and incorrect once the site visit phase was initiated.

Of the students in the sub-sample, 44 could not be observed because they had either left LAUSD, graduated, or their whereabouts could not be determined. Thirteen students could not be observed because they were no longer eligible to receive the service indicated on their IEP obtained in the fall. Data entry errors accounted for seven students not being able to be observed.

The research team attempted to overcome these data collection challenges through a number of processes. For example, students who had moved within the district were reassigned to a site visitor canvassing that area. If a student was no longer eligible for a particular service, the research team checked the IEP data to see if another service could be observed for that student and made a reassignment accordingly.

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[16] See "School Tracks and Spring Break" section this chapter for discussion of calendar/track system in LAUSD.
[17] Spring break for Track 1 schools was April 5-9, 2004.
[18] See Appendix O for dates of the 2003-04 testing schedule.
[19] The site visitation sample was drawn from an IEP database containing information for 1,899 IEPs.

Services Provided without a Fixed Schedule

The flexibility of service provision proved to be a major methodological constraint. Services provided on a fixed day of the week at a fixed time of day could be observed. However, while some services are provided on a particular day of the week, others occur at anytime during the day. Similarly, some services are not provided on a specified day. Services that did not have a fixed day and time[20] (i.e., a scheduled start time) were not observed. Of the 410 students in the sample, 27 could not be observed because the service they received was too flexible. To compensate, whenever possible, the research team attempted to assign a second service for observation for students for whom the first service to be observed was too flexible.

The limitations surrounding which services could be observed may have introduced some bias into the observation data. Site visitors observed services that are provided according to a set schedule. One could hypothesize that services with a set schedule are more likely to be provided consistently than services provided without a fixed schedule. If this is the case, the observation data may provide a somewhat inflated sense of the consistency of service provision since the data are based on services with fixed schedules. These potential biases should be considered when reviewing the analyses in Chapter 3.

Difficult Services to Observe

The site visitors also encountered other difficulties observing certain types of services due to the way they are provided. Least Restrictive Environment counseling and support (LRE), Resource Specialist (RSP), School Mental Health (SMH), Physical Therapy (PT), and Visual Impairment (VI) services do not easily lend themselves to direct observation.[21]

LRE counseling and support is defined as "counseling services for eligible students with assessed needs based on the IEP" in the California Special Education Management Information System (CASEMIS) User's Manual. 2002-2003 Edition. The purpose of the LRE counselor is to provide assistance as students with disabilities are integrated into a less restrictive environment, typically a general education setting. As this service generally lacks a set schedule, it can be difficult to observe and indeed, identify. For example, LRE that is provided to a student twice a month for fifteen minutes may take the form of a counselor speaking with a student during lunch.

RSP is another service that is difficult to observe because it takes on many forms. RSP is defined as "a special education service that provides instruction and services to those students whose needs have been identified in an IEP, and are assigned to regular classroom teachers for the majority of a school day." For some students, RSP is a class that can be easily observed. However, RSP can also take the form of tutoring services or assistance with homework with students with learning disabilities. RSP could also be a

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[20] Services with scheduled time that was somewhat flexible (i.e. a half hour window of flexibility) were included for observation. For example, if a service had a start time of "sometime between 9:00-9:30" the service was observed.

[21] See Appendix B for descriptions of other services.

consultation between the resource specialist and the regular classroom teacher. The service may be provided on different days and times throughout the month

SMH services are defined as "one-to-one counseling, or group counseling, provided by a qualified individual pursuant to an IEP" and are confidential in nature. Some service providers did not feel comfortable sharing the schedule information with site visitors for students receiving SMH services. Without schedule information it was not possible to observe these services.

Due to the time spent obtaining the scheduling information and the need to coordinate multiple observations within the time allotted, it was not always possible to observe infrequent services. The difficulty with observing PT is that it is often provided on a monthly or annual basis, and hence, occurred once or not at all during the site visitation period.

Another service that is not easily observed is VI. This service is defined in the CASEMIS manual as "a broad category of services provided to students with visual impairments. It includes assessment of functional vision; curriculum modifications necessary to meet the student's educational needs -- including Braille, large type, aural media; instruction in areas of need…It may include coordination of other personnel providing services to the students…and collaboration with the student's classroom teacher." Similar to RSP, it was not always possible to determine whether a service was provided. For example, collaboration between teachers could not be observed. It was also difficult to observe the use of assistive technologies because the use of these services may be on an as needed basis.

The site visitors handled these challenges by collecting additional information. The site visitors were able to ascertain whether or not a service such as LRE, RSP or VI was taking place by speaking directly to the provider or the classroom teachers. In some cases, site visitors were able to ascertain more specific schedule information for less frequent services by asking probing questions. For example, a site visitor might ask the Chanda Smith Clerk what day of the month the PT session would be conducted. The site visitor was then careful to schedule this once a month service in order to ensure the observation could take place.

Unannounced Observations

Since the observations were not scheduled, the school did not know the day or week that the observation would take place. However, although it was the intention of the research team for the observations to occur without the prior knowledge of the school or provider, this was not always possible. Site visitors had to directly contact some service providers because the school staff lacked student schedule information. Schools may also have informed service providers that a site vistitor was inquiring about their students. The data gathered through the site visits may be slightly biased toward the provision of services in accordance with a student's IEP, given that the observations were not always unexpected.

School Tracks and Spring Break

As we have noted earlier, each school within LAUSD follows a calendar/track system. Schools can either be single-track, three-track or four-track. Single-track schools follow a traditional September 2 to June 17 calendar. Three- and four-track schools are year-around. The annual schedule for a student in a year-round school depends on his or her track. For example, a student in B track in three-track school will attend school from July to August 25, 2003; October 23 to December 22, 2003; January 5 to March 5, 2004 and May 3 to June 29, 2004.[22]

Since observations could only occur when a student was "on track," site visitors prioritized their scheduling and observations so that all of the students could be observed before the conclusion of the ten-week observation period. However, inaccurate and incomplete track information from the SESAC database sometimes made it difficult to prioritize students effectively. Site visitors confirmed student track information during their scheduling calls. Still, delays in obtaining scheduling information made it impossible to observe some students because they went "off track" before the observation could occur. Approximately 12 students in the sub-sample could not be observed because they were "off-track." Spring break for single–track schools significantly limited the number of students who could be observed during that week.

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[22] See Appendix N for the calendars for specific tracks.

Chapter 3: Data Analysis

Overview

This chapter presents information about the degree of discrepancy between students' services as required on IEPs and

- SESAC data
- Provider logs of related and other services
- Service delivery observations.

The chapter also provides analyses on the provision of Individual Transition Plans, services from temporary support aides, assistive technology devices, and special transportation. These different data sources provide a rich picture of the delivery of services to students with disabilities in LAUSD.

Data Analysis Issues

The analyses for this study were constrained by various factors, particularly those involving the quality of the data. Although the sampling of students was random, the schools and providers who actually provided data may be more likely to provide services than those who did not, thus creating potential bias in the results.

In addition, the poor quality of some data posed a challenge for both data entry and analysis. The lack of standardization in both logs and IEPs compromised the ability to make statements about service delivery. This was especially problematic for APE as those logs lacked session duration and utilized characters that were sometimes difficult to interpret (see Appendix I for sample APE and RSP character-based logs). The analyses for these logs are based on several assumptions, which are explained in the results for the duration and frequency analyses. Due to these log data issues, the duration and frequency analyses are presented without character-based logs in Appendix L.[23]

The Sample

For the purpose of these analyses, the disabilities and service categories in the SESAC database were consolidated in order to assure an adequate number of observations per category. The 21 SESAC eligibility categories were grouped into 10 disability categories, while the 22 service categories were grouped into 12 categories. See Tables 2.1 and 2.2 in Chapter 2 for these groupings of disabilities and services, respectively.

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[23] All APE and Home/Hospital logs were character-based; some RSP and LRE logs were also character-based.

The initial sample size was 3,800. Some of these students left LAUSD, graduated, or exited from special education, reducing the sample size to 3,624. At the end of the data collection process, IEPs of 2,997 students had been received and entered into the study database. As this sample size was somewhat smaller than the target sample size of 3,300 students for the first-stage sample, the figures suggest that an over-sampling of 15 percent was not sufficient to obtain 3,300 IEPs in this relatively short period of time.

Table 3.1 shows the different sample sizes used in the analyses for this report. As can be observed, sample sizes varied depending on the type of analysis conducted. For instance, the analyses shown in this chapter examine discrepancies of information against that contained in the IEPs only. In other words, does the information in the IEPs match the SESAC or logs? For this purpose, if a service appeared in the SESAC or log, but *not* in the IEP, the discrepancy was disregarded. Using IEPs as the benchmark, these analyses have 4,316 services and a sample size of 2,509 students.

Alternative analyses were also conducted by complementing the IEP information with SESAC or log data. If a service for a particular student appeared in the SESAC database (or if we received a log) but did *not* appear in the IEP, the alternative analyses treated this as a discrepancy. The samples sizes for the second analysis are larger, as there are more observations by combining data sources.[24] Tables for the alternative analyses can be found in Appendix G (IEP-SESAC discrepancies) and Appendix H (IEP-log discrepancies).

A second alternative IEP-log service discrepancy was conducted, including only those students from whom we had received at least one provider log. This restriction reduced the sample size from 2,509 to 1,839 students. The results of this analysis can be found in Appendix J.

For analyses regarding IEP-log discrepancies in frequency and monthly time, the student sample size was even smaller, as only 1,778 students had a frequency and/or duration of at least one service listed in their IEPs. As shown, 2,200 services had an associated frequency value in both the IEPs and logs, while 1,876 services had a duration value.

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[24] The sample size for the alternative IEP-SESAC analysis is 2,606 students. That is, 97 students appeared in the SESAC database as receiving DIS and/or RSP services, while the IEPs for these students did not reflect DIS and/or RSP services. For the alternative IEP-log analysis, the sample size is 2,556, as logs were received for 47 students who showed no DIS or RSP services in their IEPs.

Table 3.1: Samples Sizes for Discrepancy Analyses

Discrepancy Analysis	Primary Analysis Sample	Alternative Analysis Sample
IEP - SESAC		(See Appendix G)
Number of Students	2,509	2,606
Number of Services	4,316	4,603
IEP – Logs: Services Provided		(See Appendix H)
Number of Students	2,509	2,556
Number of Services	4,316	4,501
IEP – Logs: Services Provided (2nd Alternative)		
Only Students with Logs (see Appendix J)		
Number of Students	1,839	
Number of Services	3,435	
IEP – Logs: Monthly Frequency		
Number of Students	1,778	
Number of Services	2,200	
IEP – Logs: Monthly Time		
Number of Students	1,778	
Number of Services	1,876	
SESAC - Logs: Nursing		
Number of Students	127	
Number of Services	131	
IEP - Site Visit Observations: Services Provided		
Number of Students	270	
Number of Services	340	
IEPs - Site Visit Observations: Session Duration		
Number of Students	180	
Number of Services	235	

Approximately 16 percent of the students for whom we received IEPs did not have any DIS or RSP services (488 students). Students receiving Special Day Class services only ("SDC only") were included in drawing the sample, as they could potentially receive transportation, temporary support aide, or assistive technology services (which were tracked by the study). Approximately 25 percent of the overall special education population receives SDC only services. Students who did not receive RSP or related services (known as Designated Instruction and Services, or DIS) according to their IEPs were not included in these discrepancy analyses. According to the IEPs, a total of 2,509 students were supposed to receive DIS and/or RSP services. Table 3.2 shows the disability distribution of this sample.

Table 3.2: Disability Category Distribution of the Sample of 2,509 Students

Disability Category	Students with DIS and/or RSP Services in IEPs	
	Observations	Percent
Autism	266	10.6%
Deaf/Hard of Hearing	281	11.2%
Emotional Disturbance	235	9.4%
Mental Retardation	249	9.9%
Multiple Disability/Deaf-Blind	274	10.9%
Orthopedic Impairment/ Traumatic Brain Injury	294	11.7%
Other Health Impairment	233	9.3%
Specific Learning Disability	195	7.8%
Speech and Language Impairment	250	10.0%
Visual Impairment	232	9.2%
Total	**2,509**	**100%**

This sample can also be described from the service perspective (Table 3.3). Two service categories have been left out of the analysis: Career and Transition Services and Special Nursing.[25] Table 3.3 shows that the 2,509 students in the sample were eligible for 4,316 services, as indicated on their IEPs, an average of 1.7 services per student. The table also indicates that the high incidence services in the sample are Adaptive PE (1,053 observations) and Language and Speech (1,034). Low incidence services are Non-Public Agency (40) and Physical Therapy (137) services.

Table 3.3: IEP Service Distribution of the Sample of 2,509 students

Type of Service	Observations	Percent
Adaptive PE	1,053	24.4%
Deaf and Hard of Hearing Services	342	7.9%
Language and Speech	1,034	24.0%
LRE Services	214	5.0%
Non-Public Agency Services	40	0.9%
Occupational Therapy	382	8.9%
Physical Therapy	137	3.2%
RSP	530	12.3%
School Mental Health Services	332	7.7%
Visual Impairment Services	252	5.8%
Total	**4,316**	**100%**

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[25] Career and Transition Services are not recorded on IEPs as a Designated Instruction and Services (DIS). As noted in Chapter 2, the data entry instructions for extracting Special Nursing services from the IEPs were incorrect, and therefore the data were not reliable enough to include in the analyses. As Home-Hospital services were grouped with Special Nursing, Home-Hospital is also excluded from the analyses.

IEP – SESAC Discrepancies

The SESAC database is designed to contain comprehensive service information for all students in LAUSD. To what extent does the SESAC fully and accurately represent the services recorded on students' IEPs? One component of the study was to examine the proportion of the IEP services that also appear in SESAC for a sample of students. As shown in Table 3.4, 699 of the 1,053 Adaptive PE (APE) services recorded on the 2,509 IEPs were also found in the SESAC database. In other words, there was a 66 percent agreement in regard to the services across both information sources. The degree of discrepancy varied depending on the type of service, ranging from 22.5 percent discrepancy in the case of RSP to 72.5 percent for NPA services. On average, 65 percent of the total services in the IEPs were also found in the SESAC database.

As mentioned, it was also possible to find services that only appeared in the SESAC database but did not appear in the students' IEPs. Using this analysis, the overall agreement between IEP and SESAC data decreases from 65 to 61 percent (see Tables G-1 and G-2 in Appendix G). These discrepancies may be attributed to true differences between the IEP and SESAC data, as well as potential data entry problems (e.g., arising from multiple IEPs; see Chapter 2).

Table 3.4: IEP – SESAC Discrepancy Analysis: Number and Percentages of Services With and Without Discrepancies, by Service [2,509 students]

Type of Service	No Discrepancy		Only in IEP Database		Total
RSP	411	77.5%	119	22.5%	**530**
Deaf and Hard of Hearing Services	244	71.3%	98	28.7%	**342**
Adaptive PE	699	66.4%	354	33.6%	**1,053**
Language and Speech	676	65.4%	358	34.6%	**1,034**
Occupational Therapy	242	63.4%	140	36.6%	**382**
School Mental Health Services	197	59.3%	135	40.7%	**332**
Visual Impairment Services	141	56.0%	111	44.0%	**252**
Physical Therapy	76	55.5%	61	44.5%	**137**
LRE Services	101	47.2%	113	52.8%	**214**
Non-Public Agency Services	11	27.5%	29	72.5%	**40**
Total Services	**2,798**	**64.8%**	**1,518**	**35.2%**	**4,316**

Table 3.5: IEP – SESAC Discrepancy Analysis: Number and Percentages of Services With and Without Discrepancies, by Disability [2,509 students]

Disability	No Discrepancy		Only in IEP Database		Total
Specific Learning Disability	183	79.2%	48	20.8%	**231**
Speech and Language Impairment	226	72.2%	87	27.8%	**313**
Other Health Impairment	264	68.2%	123	31.8%	**387**
Deaf/ Hard of Hearing	323	68.1%	151	31.9%	**474**
Mental Retardation	272	67.8%	129	32.2%	**401**
Multiple Disability/Deaf-Blind	362	65.9%	187	34.1%	**549**
Autism	331	64.4%	183	35.6%	**514**
Emotional Disturbance	187	60.7%	121	39.3%	**308**
Visual Impairment	254	57.9%	185	42.1%	**439**
Orthopedic Impairment/Traum. Brain I.	396	56.6%	304	43.4%	**700**
Total Services	**2,798**	**64.8%**	**1,518**	**35.2%**	**4,316**

IEP – Provider Log Discrepancies

The second major analysis assesses the discrepancies between the students' IEPs and the service provider logs. Given that these logs are designed to provide a record of each instance of service provision in LAUSD, they are a very important source of information. Logs were requested for all 3,800 students in the sample, based on the services in the December 2003 SESAC database. In February 2004, logs which had not yet been obtained for students with DIS and/or RSP services in their IEPs were re-requested. This second request allowed for the possibility that the IEP had more current service information than the SESAC and the inclusion of logs for services that did not appear in the SESAC. As mentioned in the previous section, 2,509 students of the first-stage sample showed DIS and/or RSP services in their IEPs. While we received logs for 1,839 of those students, logs for about 27 percent of the sample (670 students) were not obtained (although requested). On the other hand, logs arrived for 47 students who did *not* show any DIS or RSP services in their IEPs.[26]

Table 3.6: Relevant Sample of IEP – Service Log Discrepancy

	Students Whose Service Logs Were Obtained		Students Whose Service Logs Were Not Obtained		Total
Students with DIS and/or RSP in IEPs	1,839	73.3%	670	26.7%	**2,509**

IEP – Log Discrepancy Analysis: Are Services Provided?

The first question to analyze was whether students with disabilities were receiving the services that appeared in their IEPs. IEPs document which services students are to

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[26] As the requests for IEPs and services logs were made from different sources (schools and providers, respectively), we received service logs for some students but not their IEPs. These students were not included in the analysis. See Appendix H for tables based on the sample of 2,556 students.

receive, while the log is a record of actual service provision. Table 3.7 shows the total number and percentage of services with and without discrepancies between IEPs and provider logs.[27] If we received a service log for a particular student, we assumed that the service was being provided in some manner.[28] However, we cannot state conclusively that no log at all for a specific service means that the service was *not* being provided, but rather there was no evidence of service delivery.

Table 3.7: IEP – Service Log Discrepancy Analysis: Number and Percentages of Services Provided and Those with No Evidence of Provision, by Service [2,509 students]

Type of Service	Service Provided		No Evidence of Provision		Total
Deaf and Hard of Hearing Services	283	82.7%	59	17.3%	342
Occupational Therapy	294	77.0%	88	23.0%	382
Language and Speech	781	75.5%	253	24.5%	1,034
Visual Impairment Services	187	74.2%	65	25.8%	252
Adaptive PE	726	68.9%	327	31.1%	1,053
Physical Therapy	85	62.0%	52	38.0%	137
Non-Public Agency Services	22	55.0%	18	45.0%	40
LRE Services	107	50.0%	107	50.0%	214
School Mental Health Services	136	41.0%	196	59.0%	332
RSP	120	22.6%	410	77.4%	530
Total Services	**2,741**	**63.5%**	**1,575**	**36.5%**	**4,316**

Again, important differences can be observed in the degree of discrepancy across services. Lower discrepancy rates are shown for Deaf and Hard of Hearing and Occupational Therapy services, with 17 and 23 percent, respectively. On the other extreme, services such as RSP and LRE had a relatively high degree of discrepancy. No evidence of provision was found for over 77 percent the RSP services that appeared in the students' IEP.[29]

As shown in Table 3.8, important differences in the degree of discrepancy were also observable across primary disability categories. A particularly high relative degree of discrepancy was observed for students with Specific Learning Disability and Emotional Disturbance, with over 60 percent of their IEP services not found in the provider logs.

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[27] The SESAC-log discrepancy analysis for nursing services is presented in the following section.
[28] If a log for a particular service was obtained, the service was considered to be provided, irrespective of frequency or duration. The frequency and duration analyses that follow this section take into account how many times and for how long the service was provided.
[29] This percentage includes students' RSP schedules that were obtained, although schedules do not technically qualify as logs since they do not indicate service delivery on specific dates.

Table 3.8: IEP – Service Log Discrepancy Analysis: Number and Percentages of Services Provided and Those with No Evidence of Provision, by Disability [2,509 students]

Disability	Service Provided		No Evidence of Provision		Total
Deaf/Hard of Hearing	367	77.4%	107	22.6%	**474**
Multiple Disability/Deaf-Blind	414	75.4%	135	24.6%	**549**
Mental Retardation	279	69.6%	122	30.4%	**401**
Autism	350	68.1%	164	31.9%	**514**
Speech and Language Impairment	206	65.8%	107	34.2%	**313**
Visual Impairment	289	65.8%	150	34.2%	**439**
Orthopedic Impairment/Traum. Brain I.	424	60.6%	276	39.4%	**700**
Other Health Impairment	213	55.0%	174	45.0%	**387**
Emotional Disturbance	121	39.3%	187	60.7%	**308**
Specific Learning Disability	78	33.8%	153	66.2%	**231**
Total Services	**2,741**	**63.5%**	**1,575**	**36.5%**	**4,316**

IEP-log service discrepancies were also conducted by school type, as shown in Table 3.9. While 74.1 and 67.3 percent of the services recorded on the IEPs are provided in Special Centers and Elementary Schools, respectively, less than half of the services are provided at the high school level. Preschool/Early Education Centers also show a low provision rate (29.2 percent); however there are fewer observations in this category.

Table 3.9: IEP – Service Log Discrepancy Analysis: Number and Percentages of Services Provided and Those with No Evidence of Provision, by School Type

Type of School	Service Provided		No Evidence of Provision		Total
Preschool / Early Education Centers	19	29.2%	46	70.8%	**65**
Elementary Schools and Their Magnets	1,474	67.3%	715	32.7%	**2,189**
Middle Schools and Their Magnets	334	53.4%	292	46.6%	**626**
High Schools and Their Magnets	294	49.1%	305	50.9%	**599**
Special Centers	620	74.1%	217	25.9%	**837**
Total	**2,741**	**63.5%**	**1,575**	**36.5%**	**4,316**

Nursing SESAC – Log Discrepancy Analysis

Because the data entry for recording nursing services on the IEPs was inaccurate, discrepancy analyses were instead conducted between nursing logs and the SESAC database. Although imperfect, the SESAC database is intended to represent all services that appear in the students' IEPs. Therefore, as a proxy measure for IEP services, analyses between the SESAC and logs would provide some understanding of whether nursing services are provided in accordance with the IEP.

Table 3.10 shows that nursing services appeared in both the logs and SESAC for 50.9 of the nursing records, while a similar percentage (49.1 percent) of the records appeared in SESAC but had no log. This table also shows the breakout by disability category. As all

disability categories except for Orthopedic Impairment / Traumatic Brain Injury (OI/TBI) and Multiple Disability / Deaf-Blindness (MD/DB) had few observations, these findings should be treated with caution. Lass than 60 percent of the nursing records for OI/TBI and 44.1 percent for MD/DB appeared in the SESAC database but had no accompanying log records.

Table 3.10: Number and Percentages of Nursing Services Provided and Those with No Evidence of Service Provision, by Disability*

	Service Provided		No Evidence of Service Provision		Total
Other Health Impairment	13	81.3%	3	18.8%	**16**
Multiple Disability/Deaf-Blind	19	55.9%	15	44.1%	**34**
Mental Retardation	1	50.0%	1	50.0%	**2**
Visual Impairment	4	44.4%	5	55.6%	**9**
Orthopedic Impairment/Traum. Brain I.	17	40.5%	25	59.5%	**42**
Autism	2	40.0%	3	60.0%	**5**
Deaf/Hard of Hearing	0	0.0%	1	100.0%	**1**
Emotional Disturbance	0	0.0%	1	100.0%	**1**
Speech and Language Impairment	0	0.0%	0	0.0%	**0**
Specific Learning Disability	0	0.0%	0	0.0%	**0**
Total	**56**	**50.9%**	**54**	**49.1%**	**110**

* This analysis treats SESAC nursing records as if they were IEP records.

IEP – Log Discrepancy Analysis: Frequencies and Duration

The previous section analyzed whether services that appeared in students' IEPs were provided using service logs as the evidence of provision. It is also important to evaluate whether IEP services that had an associated log were provided with the *frequency* (i.e., how often the services are provided) and *duration* (i.e., the amount of time the service was provided) stipulated in the IEPs.

As described in the methodology chapter, logs were categorized into two broad groups for data entry purposes: 1) logs that generally documented the session status, duration (e.g., minutes), and notes of what occurred during each session, and 2) logs that primarily used special characters (e.g., dashes, periods, letters) to document service sessions. As the characters used in the second group were various and the duration of each session was not recorded, the analyses of these logs involved several assumptions. The general approach was to consider sessions recorded with dots as completed sessions. However, in some cases, providers recorded a complete session by leaving the cell blank on the log, and only recorded information when service was *not* provided, such as student absences, holidays, etc. Accordingly, the database entries for these logs were checked to determine which approach the providers used to record the information; completed sessions were associated with the blank cells when it appeared appropriate. This non-standardized procedure to record information made the process of interpretation very time-intensive. Furthermore, as character-based logs typically do not document the duration for each session, the duration recorded in the IEP was applied to characters that indicated the session was complete. A shortcoming of this assumption is that the logs may appear more

IEP compliant in the duration analyses. Accordingly, Appendix L presents the results of the frequencies and monthly service time analyses just using the logs in the first group (excluding character-based logs).

The frequency analyses of all logs excluded cases in which the service frequency was missing in either the IEP or the service log. Only with an observed frequency in both was it possible to generate an empirical evaluation of any frequency discrepancy. The same applied to the analysis of the monthly duration of special education services.

Given this approach, the sample size varied depending on the available observations in both the students' IEPs and their service provider logs. Tables K-3 and K-4 in Appendix K show the observations that were used in the monthly frequency and duration of services. For the frequency analysis, 2,200 service observations had an associated frequency in both the IEP and the provider log, and 1,876 observations were available for the duration analysis.

With these available observations, it was possible to compare the IEP frequencies with those recorded on the provider logs, and assess whether the log frequencies met the service standard specified in the IEPs (i.e., "IEP compliance satisfied" was counted when the log frequency was equal to or higher than that specified in the IEP).

Table 3.11 shows the number and percentages of services for which there were discrepancies in the frequency between IEP and the logs. The log frequency for about 57 percent of the services provided to the sample of students were shown as being in compliance with the IEP. The results showed an important variation in the degree of frequency discrepancy. On the high extreme of discrepancy are services such as LRE and Occupational Therapy services, with 65 and 56 percent of log frequencies lower than the ones in the IEPs, respectively. However, the estimates for LRE and RSP should be treated with caution given the low number of RSP and LRE provider logs obtained. Adaptive PE and Language and Speech logs alone made up half of the sample of logs.

Table 3.11: Monthly Service Frequency, All Logs, Number and Percentages of Services With and Without Discrepancies, by Service [1,778 students]

Type of Service	Lower Frequency in Logs		Frequency Meets IEP Compliance		Total
Non-Public Agency Services	3	13.6%	19	86.4%	**22**
Adaptive PE	156	24.1%	492	75.9%	**648**
RSP	9	29.0%	22	71.0%	**31**
School Mental Health Services	42	40.4%	62	59.6%	**104**
Deaf and Hard of Hearing Services	94	47.0%	106	53.0%	**200**
Language and Speech	353	51.9%	327	48.1%	**680**
Visual Impairment Services	81	51.9%	75	48.1%	**156**
Physical Therapy	35	53.8%	30	46.2%	**65**
Occupational Therapy	143	56.3%	111	43.7%	**254**
LRE Services	26	65.0%	14	35.0%	**40**
Total Services	**942**	**42.8%**	**1,258**	**57.2%**	**2,200**

Table 3.12 presents this discrepancy analysis by primary disability categories. The overall discrepancy rate did not vary, as the results were just analyzed from a different perspective. An important aspect of these results is that the provider logs showed similar percentages of higher and lower monthly service frequencies than those specified in the IEPs.

Primary disability categories with a relatively low IEP compliance rate were Specific Learning Disability (51.1 percent), Other Health Impairment (53.3 percent), and Multiple Disability/Deaf-Blind (54.0 percent). Emotional Disturbance was an outlier at the other extreme, with 70.3 percent of their services meeting IEP compliance.

Table 3.12: Monthly Service Frequency, All Logs, Number and Percentages of Services With and Without Discrepancies, by Disability [1,778 students]

Disability	Lower Frequency in Logs		Frequency Meets IEP Compliance		Total
Emotional Disturbance	27	29.7%	64	70.3%	**91**
Speech and Language Impairment	68	39.1%	106	60.9%	**174**
Orthopedic Impairment/Traum. Brain I.	130	41.0%	187	59.0%	**317**
Autism	125	41.8%	174	58.2%	**299**
Mental Retardation	105	43.4%	137	56.6%	**242**
Visual Impairment	109	43.4%	142	56.6%	**251**
Deaf/Hard of Hearing	123	44.4%	154	55.6%	**277**
Multiple Disability/Deaf-Blind	155	46.0%	182	54.0%	**337**
Other Health Impairment	78	46.7%	89	53.3%	**167**
Specific Learning Disability	22	48.9%	23	51.1%	**45**
Total Services	**942**	**42.8%**	**1,258**	**57.2%**	**2,200**

It is possible that students were receiving services in lower frequencies but for longer time. Table 3.13 presents the analysis of the duration of services provided in terms of total minutes per month. Services specified on a weekly basis in the IEPs were converted to monthly amounts by multiplying by four. This is not exact, as for some months students should receive more than four weeks of service, e.g. a month with five Mondays. Thus, the IEP standard will be actually a bit low on average, making log totals more likely to appear relatively high, and the discrepancy rates shown below may be somewhat biased downward. However, it should be noted that the duration for completed sessions recorded in the character-based logs were inferred from the IEP data, which may bias this analysis upwards for those services (e.g., APE). Services showing high compliance rates in terms of total monthly duration were Non-Public Agency, RSP, and School Mental Health. However, some of these estimates have to be treated with caution because of low number of observations.

Table 3.13: Monthly Service Time, All Logs, Number and Percentages of Services With and Without Discrepancies, by Service [1,778 students]

Type of Service	Lower Duration in Logs		Total Duration Meets IEP Compliance		Total
Non-Public Agency Services	0	0.0%	22	100.0%	**22**
RSP	8	25.8%	23	74.2%	**31**
School Mental Health Services	29	28.2%	74	71.8%	**103**
Adaptive PE	195	31.0%	435	69.0%	**630**
Deaf and Hard of Hearing Services	34	37.8%	56	62.2%	**90**
Visual Impairment Services	8	40.0%	12	60.0%	**20**
Occupational Therapy	97	40.6%	142	59.4%	**239**
Language and Speech	311	47.2%	348	52.8%	**659**
Physical Therapy	26	47.3%	29	52.7%	**55**
LRE Services	15	55.6%	12	44.4%	**27**
Total Services	**723**	**38.5%**	**1,153**	**61.5%**	**1,876**

Table 3.14 shows the number and percentages of services for which the total monthly service time meets that specified in the IEP by disability. The overall percentage of services with a total monthly duration meeting IEP compliance was 61.5 percent. Note that this figure is higher than the one observed for monthly service frequencies. This implies that, on average, services for special education students in LAUSD were provided in longer sessions but less frequently than what was stipulated in the students' IEPs. Emotional Disturbance was again the primary disability category with the highest degree of compliance in terms of total monthly duration of services (77.3 percent).

Table 3.14: Monthly Service Time, All Logs, Number and Percentages of Services With and Without Discrepancies, by Disability [1,778 students]

Disability	Lower Duration in Logs		Duration Meets IEP Compliance		Total
Emotional Disturbance	20	22.7%	68	77.3%	**88**
Autism	102	35.4%	186	64.6%	**288**
Visual Impairment	54	36.0%	96	64.0%	**150**
Deaf/Hard of Hearing	62	36.5%	108	63.5%	**170**
Orthopedic Impairment/Traum. Brain I.	111	39.2%	172	60.8%	**283**
Other Health Impairment	64	40.0%	96	60.0%	**160**
Mental Retardation	92	40.2%	137	59.8%	**229**
Multiple Disability/Deaf-Blind	123	41.8%	171	58.2%	**294**
Speech and Language Impairment	75	43.9%	96	56.1%	**171**
Specific Learning Disability	20	46.5%	23	53.5%	**43**
Total Services	**723**	**38.5%**	**1,153**	**61.5%**	**1,876**

Site Visit Analyses

The delivery of special education services specified in the student's IEP was verified through a visit to a school. A random sample of 410 students was drawn from our sample of 1,899 available IEPs.[30] The study objective was to obtain 30 unique student observations in each of the ten disability categories and 30 observations in nine service categories. This goal was met for six services and two disability categories.[31] Chapter 2 details the methodological issues that hampered progress towards reaching the 30 quota for all categories. We collected observational data for 270 unique students, representing 340 service sessions. Tables 3.15 and 3.16 show the distribution of services and disability categories for this sample, respectively.

Table 3.15 shows that most observations were for APE and LAS services, with LRE, School Mental Health, and Physical Therapy services each comprising only about 6 percent of the completed observations.[32]

Table 3.15: Number and Percentages of Completed Observations by Service

Service	Observations	Percent
Adaptive PE	59	17.4%
Deaf and Hard of Hearing Services	33	9.7%
Language and Speech	67	19.7%
LRE Services	19	5.6%
Occupational Therapy	37	10.9%
Physical Therapy	22	6.5%
School Mental Health Services	21	6.2%
Visual Impairment Services	36	10.6%
RSP	46	13.5%
Total	**340**	**100%**

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[30] The number of IEPs available at time of drawing the site visitation sample (n=1,899) is smaller than the final sample, as IEP data entry continued after drawing the site visitation sample.

[31] Counting students multiple times, seven disability categories had 30 or more service observations.

[32] As Chapter 2 explains, LRE, School Mental Health, and Physical Therapy services were difficult to observe due to flexibility in provision, infrequent provision, and confidentiality issues.

Table 3.16: Numbers and Percentages of Completed Observations by Disability Category

Primary Disability	Students Counted for Every Observation		Students Counted Only Once	
	Observations	Percent	Observations	Percent
Autism	32	9.4%	29	10.7%
Deaf/Hard of Hearing	34	10.0%	26	9.6%
Emotional Disturbance	20	5.9%	19	7.0%
Mental Retardation	28	8.2%	27	10.0%
Multiple Disability/Deaf-Blind	43	12.6%	32	11.9%
Orthopedic Impairment/Traumatic Brain Injury	46	13.5%	32	11.9%
Other Health Impairment	33	9.7%	23	8.5%
Specific Learning Disability	27	7.9%	26	9.6%
Speech and Language Impairment	32	9.4%	28	10.4%
Visual Impairment	45	13.2%	28	10.4%
Total	**340**	**100%**	**270**	**100%**

Each service observation was coded to indicate whether the service was provided as scheduled, and if not, the reasons for "no service delivery" (see Appendix F for codes). Table 3.17 presents the status of the sessions observed, as well as the reasons for incomplete and no-service sessions. We assigned an "incomplete" to any service provided for less time than scheduled.[33] Furthermore, student absence and student no shows were counted towards service provision, as the provider was present and available to provide service. Overall, 81.5 percent of the required services we attempted to observe were provided, with 66.5 percent of the services being provided for the full scheduled duration. Slightly over 5 percent of the services were provided but not for the full duration, and the student was absent or did not show up for service in 9.7 percent of the cases. No service was provided as scheduled in 18.5 percent of the cases.

Of particular concern may be services that were not provided because the provider was in a meeting (5 percent), the provider was no show/no reason (5 percent), and because there was no provider on staff (2.1 percent). Information for the last situation was gleaned from telephone calls to the school.

For 11 of the 17 instances in which service did not occur due to the provider being in a meeting, the provider was attending an IEP meeting for another student. While compensatory time could have been provided at another time for sessions that did not occur, these data provide a snapshot of service at a particular time on a particular day. It was beyond the scope of the study to continually track students' services.

In three instances, the student was no longer provided Adaptive PE services, as the school indicated that the student had "met the state requirement for physical education."

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[33] For instance, if a service was scheduled to be provided from 9:10 a.m. to 10:00 a.m. (i.e., 50 minutes), but was provided only for 40 minutes, this session would be counted as an incomplete.

Table 3.17: Number and Percentage of Observations by Session Status [340 Observations] <1>

Status of Session	Observations	Percent
SERVICE PROVIDED	**277**	**81.5%**
Session Completed	226	66.5%
Session Provided/Session Incomplete	18	5.3%
Classes Shortened Due to School Minimum Day	*7*	*2.1%*
Student Arrived at Class Late, Time Not Made Up	*2*	*0.6%*
Provider Cut Lesson Short Due to IEP Meeting	*5*	*1.5%*
Provider Started Late, Time Not Made Up	*4*	*1.2%*
Student Absent <2>	27	7.9%
Student No Show <2>	6	1.8%
SERVICE NOT PROVIDED	**63**	**18.5%**
Provider Absent <3>	11	3.2%
Provider in Meeting	17	5.0%
Other	35	10.3%
Provider No Show, No Reason Given	*17*	*5.0%*
Provider No Show, Provider Switched Dates	*2*	*0.6%*
No Provider on Staff	*7*	*2.1%*
School Says Student Fulfilled Requirement, No Longer Served (APE)	*3*	*0.9%*
Student Stopped Showing Up for Sessions and/or School	*3*	*0.9%*
Shortened Day Schedule	*1*	*0.3%*
Testing	*2*	*0.6%*
Total	**340**	**100%**

<1> See Appendix F for description of status codes.
<2> These codes were used when the provider was present and available to provide service.
<3> Provider absent code was valid only for provider illness, family emergency, or jury duty.

Tables 3.18 to 3.21 delineate service provision for the 340 observations by service type and disability category. As shown in Table 3.18, the provision of service ranged from about 63.2 percent for LRE services to nearly 94 percent for RSP services. When examining the status codes by disability category in Table 3.21, students with Mental Retardation in our sample show the highest service provision with 92.8 percent, whereas students with Deafness/Hard of Hearing received their services less than 74 percent of the time.

Table 3.18: IEP-Site Visit Observations: Session Status of Service Observations by Service (Counts) [340 Observations]

	Service Provided				Service Not Provided				
	Provided Total	Session Completed	Service Provided / Session Incomplete	Student Absent	Student No Show	**Not Provided Total**	Provider Absent	Provider in Meeting	Other	**Total**
RSP	**43**	36	5	1	1	**3**	1	1	1	**46**
VI	**29**	27	1	1	0	**7**	2	2	3	**36**
LAS	**55**	46	4	3	2	**12**	1	8	3	**67**
APE	**51**	37	6	7	1	**8**	1	0	7	**59**
SMH	**16**	13	1	1	1	**5**	1	1	3	**21**
PT	**17**	14	0	3	0	**5**	2	0	3	**22**
LRE	**12**	11	1	0	0	**7**	1	2	4	**19**
DHH	**24**	20	0	4	0	**9**	0	2	7	**33**
OT	**30**	22	0	7	1	**7**	2	1	4	**37**
Total	**277**	**226**	**18**	**27**	**6**	**63**	**11**	**17**	**35**	**340**

Table 3.19: IEP-Site Visit Observations: Session Status of Services Observations by Service (Percentages) [340 Observations]

	Service Provided				Service Not Provided				
	Provided Total	Session Completed	Service Provided / Session Incomplete	Student Absent	Student No Show	**Not Provided Total**	Provider Absent	Provider in Meeting	Other	**Total**
RSP	**93.6%**	78.3%	10.9%	2.2%	2.2%	**6.6%**	2.2%	2.2%	2.2%	**100%**
APE	**86.5%**	62.7%	10.2%	11.9%	1.7%	**13.6%**	1.7%	0.0%	11.9%	**100%**
LAS	**82.2%**	68.7%	6.0%	4.5%	3.0%	**17.9%**	1.5%	11.9%	4.5%	**100%**
OT	**81.1%**	59.5%	0.0%	18.9%	2.7%	**18.9%**	5.4%	2.7%	10.8%	**100%**
VI	**80.6%**	75.0%	2.8%	2.8%	0.0%	**19.5%**	5.6%	5.6%	8.3%	**100%**
PT	**77.2%**	63.6%	0.0%	13.6%	0.0%	**22.7%**	9.1%	0.0%	13.6%	**100%**
SMH	**76.3%**	61.9%	4.8%	4.8%	4.8%	**23.9%**	4.8%	4.8%	14.3%	**100%**
DHH	**72.7%**	60.6%	0.0%	12.1%	0.0%	**27.3%**	0.0%	6.1%	21.2%	**100%**
LRE	**63.2%**	57.9%	5.3%	0.0%	0.0%	**36.9%**	5.3%	10.5%	21.1%	**100%**
Total	**81.5%**	66.5%	5.3%	7.9%	1.8%	**18.5%**	3.2%	5.0%	10.3%	**100%**

*Totals will not add up to 100 percent due to rounding.

Table 3.20: IEP-Site Visit Observations: Session Status of Service Observations by Disability (Counts) [340 Observations]

	Service Provided				Service Not Provided				
	Provided Total	Session Completed	Service Provided / Session Incomplete	Student Absent	Student No Show	**Not Provided Total**	Provider Absent	Provider in Meeting	Other	**Total**
MR	**26**	21	2	2	1	**2**	0	0	2	**28**
SLD	**25**	20	3	1	1	**2**	0	1	1	**27**
MD/DB	**39**	32	1	6	0	**4**	0	2	2	**43**
OHI	**27**	22	1	4	0	**6**	0	1	5	**33**
SLI	**26**	20	3	2	1	**6**	2	2	2	**32**
ED	**16**	15	1	0	0	**4**	1	2	1	**20**
AUT	**25**	19	2	4	0	**7**	1	5	1	**32**
VI	**34**	29	4	1	0	**11**	3	2	6	**45**
OI/TBI	**34**	28	1	3	2	**12**	4	1	7	**46**
DHH	**25**	20	0	4	1	**9**	0	1	8	**34**
Total	**277**	**226**	**18**	**27**	**6**	**63**	**11**	**17**	**35**	**340**

Table 3.21: IEP-Site Visit Observations: Session Status of Service Observations by Disability (Percentages) [340 Observations]

	Service Provided				Service Not Provided				
	Provided Total	Session Completed	Service Provided / Session Incomplete	Student Absent	Student No Show	**Not Provided Total**	Provider Absent	Provider in Meeting	Other	**Total**
MR	**92.8%**	75.0%	7.1%	7.1%	3.6%	**7.1%**	0.0%	0.0%	7.1%	**100%**
SLD	**92.6%**	74.1%	11.1%	3.7%	3.7%	**7.4%**	0.0%	3.7%	3.7%	**100%**
MD/DB	**90.7%**	74.4%	2.3%	14.0%	0.0%	**9.4%**	0.0%	4.7%	4.7%	**100%**
OHI	**81.8%**	66.7%	3.0%	12.1%	0.0%	**18.2%**	0.0%	3.0%	15.2%	**100%**
SLI	**81.3%**	62.5%	9.4%	6.3%	3.1%	**18.9%**	6.3%	6.3%	6.3%	**100%**
ED	**80.0%**	75.0%	5.0%	0.0%	0.0%	**20.0%**	5.0%	10.0%	5.0%	**100%**
AUT	**78.2%**	59.4%	6.3%	12.5%	0.0%	**21.8%**	3.1%	15.6%	3.1%	**100%**
VI	**75.5%**	64.4%	8.9%	2.2%	0.0%	**24.4%**	6.7%	4.4%	13.3%	**100%**
OI/TBI	**73.9%**	60.9%	2.2%	6.5%	4.3%	**26.1%**	8.7%	2.2%	15.2%	**100%**
DHH	**73.5%**	58.8%	0.0%	11.8%	2.9%	**26.4%**	0.0%	2.9%	23.5%	**100%**
Total	**81.5%**	66.5%	5.3%	7.9%	1.8%	**18.5%**	3.2%	5.0%	10.3%	**100%**

*Totals will not add up to 100 percent due to rounding.

The results above are not strong in regard to generalization to the larger population of LAUSD special education students. Where there are at least 30 cases in a cell, we believe that there is some applicability to the population as a whole, e.g., that 86.5 percent of APE services in the district are actually provided. When this number is further broken down, e.g. by reason of non-provision, this should be considered more as descriptive information than a finding that can be applied to the district as a whole. As will be

discussed in greater detail in Chapter 4, the greatest value of these data may be in providing a better sense of the source of IEP to service log discrepancy than as solid baseline estimates of service that can stand alone. That is, these data provide an indicator of the extent to which IEP to log discrepancies stem from poor log maintenance in relation to actual service provision.

Sessions were considered "complete" if the service was provided for at least the full amount of time for which the service was scheduled, or the "scheduled duration." This schedule information was obtained from schools and providers over the telephone prior to making the visits. For instance, if a service was scheduled to be provided from 9:10 a.m. to 10:00 a.m., the scheduled duration would be 50 minutes. While the services observed were those specified in the IEP, the complete sessions shown in the prior tables do not necessarily suggest that the duration was in compliance with the IEP. Tables 3.22 and 3.23 compare the duration of the observed session to the duration recorded on the IEP. Because IEPs do not specify session duration, an assumption was made that if the IEP has a frequency of two times per week, and a total weekly duration of 60 minutes, then each session should be 30 minutes for a particular service. The tables show that almost 60 percent of the service observations met the required session duration recorded in the IEP. Physical Therapy services had the lowest duration compliance, with 38.1 percent. By disability, students with Orthopedic Impairment / Traumatic Brain Injury showed the lowest compliance at 43.6 percent. However, with the few observations for Physical Therapy, LRE, and School Mental Health, these data should not be generalized to the larger population.

Table 3.22: IEP-Site Visit Agreement by Service: Session Duration Provided and Not Provided According to IEP [340 Observations]

Type of Services	Duration Provided		Duration Not Provided		Total
RSP	24	77.4%	7	22.6%	**31**
School Mental Health Services	11	68.8%	5	31.3%	**16**
Adaptive PE	32	64.0%	18	36.0%	**50**
Visual Impairment Services	17	58.6%	12	41.4%	**29**
Language and Speech	12	57.1%	9	42.9%	**21**
Occupational Therapy	17	54.8%	14	45.2%	**31**
Deaf and Hard of Hearing Services	10	47.6%	11	52.4%	**21**
LRE Services	7	46.7%	8	53.3%	**15**
Physical Therapy	8	38.1%	13	61.9%	**21**
Total	**138**	**58.7%**	**97**	**41.3%**	**235**

Table 3.23: IEP-Site Visit Agreement by Disability: Session Duration Provided and Not Provided According to IEP [340 Observations]

Disability	Duration Provided		Duration Not Provided		Total
Emotional Disturbance	10	83.3%	2	16.7%	**12**
Mental Retardation	16	72.7%	6	27.3%	**22**
Specific Learning Disability	12	70.6%	5	29.4%	**17**
Multiple Disability/Deaf-Blind	23	65.7%	12	34.3%	**35**
Other Health Impairment	15	65.2%	8	34.8%	**23**
Deaf/Hard of Hearing	11	55.0%	9	45.0%	**20**
Autism	12	52.2%	11	47.8%	**23**
Speech and Language Impairment	4	50.0%	4	50.0%	**8**
Visual Impairment	18	50.0%	18	50.0%	**36**
Orthopedic Impairment/Traum. Brain I.	17	43.6%	22	56.4%	**39**
Total	**138**	**58.7%**	**97**	**41.3%**	**235**

Overall Population Estimate

In addition to estimating the degree of discrepancy between IEPs and provider logs by category of disability and by type of service, it is also important to obtain an overall discrepancy estimate for the population. This presents an overall estimate of the percentage of IEP services that are provided to students with disabilities in LAUSD. To derive this overall estimate, it was necessary to assign a weight to the discrepancy rate of each disability category. Table 3.24 shows the population and sample size of each disability category.

The probability shown in Column C represents the probability that each student with a particular disability faced of being selected into the sample. This probability was simply obtained dividing the sample size by the population size of each disability category. In the case of students with Mental Retardation, for instance, each one had a 5.5 percent probability (i.e., 249 / 4,532) of being selected into the sample. Column D presents the *probability weight*, which is obtained dividing one by the probability of being selected into the sample. It shows the number of students of the population that each student of the sample represented. For example, each student with a Speech and Language Impairment in the sample represented about 32 students with this disability in the population. Given that students with Specific Learning Disability (SLD) constitute nearly 65 percent of the special education population, and that this category had a low probability, each student with SLD had a high weight, representing 261 students with this disability in the population.

Table 3.24: Probability and Weights of First-Stage Sample

Disability Categories	Population (SESAC) A	First-Stage Sample B	Probability C	Weight D
Autism	3,419	266	0.078	12.85
Emotional Disturbance	1,856	235	0.127	7.90
Deaf/Hard of Hearing	1,753	281	0.160	6.24
Mental Retardation	4,532	249	0.055	18.20
Multiple Disability/Deaf-Blind	1,556	274	0.176	5.68
Orthopedic Impairment/Traumatic Brain I.	1,188	294	0.247	4.04
Other Health Impairment	5,038	233	0.046	21.62
Specific Learning Disability	50,973	195	0.004	261.40
Speech and Language Impairment	8,036	250	0.031	32.14
Visual Impairment	502	232	0.462	2.16
Total	**78,853**	**2,509**		

Using the IEP-log rates by category of disability from Table 3.8, we used the weights above to obtain an overall population service compliance estimate of 42.7 percent. That is, 42.7 percent of all IEP services appear to be provided to students with disabilities in LAUSD, regardless of disability category, based on data from the sample of service logs provided for this study. This number needs to be taken with extreme caution given the data quality concerns described in Chapter 2. Especially problematic with regards to this estimate is the high weight for students with SLD, resulting from the very high percentage of LAUSD students with this primary disability. Given that these students are primary users of RSP services, and that many provider logs were missing, over 20 percent of the discrepancy rate is driven by this service and disability category. The overall estimate of district-wide service provision increases to 63.7 percent when SLD is excluded from the population estimate, as shown in Table 3.25.

Table 3.25: Overall Population Estimate and Alternative Approaches

	Overall Population Estimate of Service Provision	Discrepancy Rate of Service NOT Provided
Percentage of services received by all students with disabilities in LAUSD	**42.7% <1>**	**57.3%**
Percentage of services received by students with disabilities in LAUSD – Excluding students with Specific Learning Disability	63.7% <2>	36.3%
Percentage of services received by students with disabilities in LAUSD – Using Site Visitation Observation Data	89.0% <3>	11.0%

<1> The 95 percent confidence interval for the population estimate using the IEP-log service agreement rates is 37.0 to 48.4 percent. See Appendix Q for discussion on confidence intervals.
<2> The 95 percent confidence interval for the population estimate using the IEP-log service agreement rates excluding SLD students is 58.9 to 68.4 percent.
<3> The 95 percent confidence interval for the population estimate using the IEP-site visit service agreement rates is 78.0 to 98.3 percent.

Another alternative is to use data from the actual site visits. While the site visit data reflect actual service provision, the sample sizes are smaller and less likely to be representative of the distribution of services within each disability category. However, the IEP-site visit comparison appears more favorable. The overall percent of IEP services provided to students with disabilities in LAUSD increases to 89.0 percent.[34] Note that including students with SLD has a *positive* effect on the overall population estimate, as the discrepancy rate is one of the lowest of all disability categories.

Other Analyses: ITP, TSA, ATD, and Transportation

Additional analyses were conducted on students with Individual Transition Plans (ITP), temporary support aide (TSA) services, assistive technology devices (ATD), and special transportation. Data on students eligible to receive these services were obtained from the IEPs and compared to individual service databases maintained by the district.

Individual Transition Plan (ITP) Analysis

LAUSD provides transition instruction and services to students with disabilities, beginning at age 14 (or younger, if determined appropriate by the IEP team), and these services are specified in an Individual Transition Plan (ITP). Transition services are "designed within an outcome-oriented process, that promotes movement from school to post-school activities, including postsecondary education, vocational training, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation"[35] School activities that contribute to this end are incorporated into the Individual Transition Plan. For this analysis, only students who were at least 14 years old at the time of their latest IEP meeting were included.[36]

Table 3.26 shows the number and percentage of students within our sample who were at least 14 years old at the time of their last IEP meeting, with and without ITPs. Of the 651 students who were age 14 and older, the vast majority (87.3 percent) had an ITP.

Table 3.26: Special Education Students With and Without Individual Transition Plans (ITP)

Students 14 Years and Older with ITPs	568	87.3%
Students 14 Years and Older without ITPs	83	12.7%
Total	**651**	**100.0%**

Table 3.27 shows the percentage of students within each disability category with and without ITPs. Generally, all disability categories within the sample, except for Speech and Language Impairment (SLI), were highly likely to have an ITP, with about 82 to 95

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[34] Complete and incomplete sessions were treated as evidence of service provision in the site visits.

[35] U.S. Department of Education (1999), CFR Sections 300.29 and 300.347(b)(1).

[36] The IEP meeting dates and students' birth dates were entered into a separate database as part of a supplemental contract with OIM. This database contains information on 2,399 students, 651 of whom were at least 14 years old at the time of the most recent meeting of the IEP on hand.

percent of the students age 14 and older having an ITP. While only 57.1 percent of the students in the sample with SLI were shown to have ITPs, this finding cannot be generalized to the larger SLI population, considering only 7 SLI students over age 14 were included in the analysis.

Table 3.27: Students Ages 14 Years and Older With and Without Individual Transition Plans (ITP), by Disability Category

	With ITPs	%	Without ITPs	%	Total
Multiple Disability/Deaf-Blind	98	95.1%	5	4.9%	103
Other Health Impairment	44	93.6%	3	6.4%	47
Deaf/Hard of Hearing	52	92.9%	4	7.1%	56
Emotional Disturbance	45	88.2%	6	11.8%	51
Autism	36	85.7%	6	14.3%	42
Mental Retardation	110	85.3%	19	14.7%	129
Specific Learning Disability	63	84.0%	12	16.0%	75
Visual Impairment	48	82.8%	10	17.2%	58
Orthopedic Impairment/ Traum. Brain Injury	68	81.9%	15	18.1%	83
Speech and Language Impairment	4	57.1%	3	42.9%	7
Total	**568**	**87.3%**	**83**	**12.7%**	**651**

Temporary Support Aide (TSA) Analysis

IEPs also indicate whether students are eligible for Temporary Support Aide (TSA) services. A TSA is provided to students with disabilities in LAUSD who require one-on-one assistance to complete their daily tasks. Examples of TSAs include special education paraprofessionals, Braille notetakers, bus assistants and sign language interpreters. The discrepancy analysis for TSA services was conducted by comparing IEPs showing students who were supposed to receive these services against an LAUSD database containing assignments of TSAs to specific students.[37] Table 3.28 shows that of the 467 students within our sample whose IEPs showed TSA eligibility, almost half (49.7 percent) were shown to actually receive the service. As NPA assistants were not included in the service database, this may be an underestimation of the provision of TSA services.

Table 3.28: Students Whose IEP Required TSA Services

Students Who Received TSA	232	49.7%
Students Who Did Not Receive TSA	235	50.3%
Total	**467**	**100.0%**

Table 3.29 shows the number and percentage of eligible students within each disability category who did and did not receive TSA services. Due to the low numbers of

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[37] This supplemental database, Special Education Trainee Assistant Report (SETAR, 2/26/04), was obtained from the OIM.

observations, data for Deaf/Hard of Hearing, Speech and Language Impairment, and Specific Learning Disability cannot be generalized to the larger population. Over 60 percent of students with Orthopedic Impairment / Traumatic Brain Injury and Autism received TSA services.

Table 3.29: Students Whose IEP Required TSA and Did/Did Not Receive the Service, by Disability Category

	Did Receive TSA		Did Not Receive TSA		Total
Orthopedic Impairment / Traum. Brain Injury	46	63.0%	27	37.0%	73
Autism	52	60.5%	34	39.5%	86
Mental Retardation	28	56.0%	22	44.0%	50
Multiple Disabilities/ Deaf-Blind	41	50.0%	41	50.0%	82
Other Health Impairment	21	50.0%	21	50.0%	42
Speech and Language Impairment	4	40.0%	6	60.0%	10
Visual Impairment	15	39.5%	23	60.5%	38
Emotional Disturbance	19	34.5%	36	65.5%	55
Deaf/Hard of Hearing	6	22.2%	21	77.8%	27
Specific Learning Disability	0	0.0%	4	100.0%	4
Total	**232**	**49.7%**	**235**	**50.3%**	**467**

Assistive Technology Devices (ATDs) Analysis

Data on students eligible to have assistive technology devices (ATDs) were also recorded from the IEPs. According to the IDEA, assistive technology service means any service that directly assists a child with a disability in the selection, acquisition, or use of an assistive technology device.[38] The IEP data were compared to an LAUSD database showing students for whom Assistive Technology (AT) evaluations had been conducted.[39] This analysis, however, is extremely limited as the district service database only lists students who have received an AT evaluation. Table 3.30 shows that of the 660 students eligible for an ATD, less than 20 percent had an AT evaluation. It is important to note that students may have already received the equipment, and thus not require an assessment.[40]

Table 3.30: Students Whose IEP Required ATD Services and Who Did/Did Not Receive an AT Evaluation

Students Who Received an AT Evaluation	125	18.9%
Students Who Did Not Receive an AT Evaluation	535	81.1%
Total	**660**	**100.0%**

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[38] U.S. Department of Education (1999), CFR Section 300.6.

[39] This supplemental database, LAUSD Assistive Technology Database, was obtained from the OIM, and only provides information on the assessments for assistive technology.

[40] LAUSD does not appear to track assistive technology devices that have been provided to students.

Special Transportation Analysis

Table 3.31 shows the number and percentage of students in our sample eligible for special transportation services[41] who did and did not appear to receive this service, based on a database of special education students actually receiving transportation.[42] Of the 1,677 sample students eligible for special transportation, approximately 67 percent appeared to receive this service.

Table 3.31: Students Whose IEP Required Special Transportation

Those Receiving Special Transportation	1,128	67.3%
Those NOT Receiving Special Transportation	549	32.7%
Total	**1,677**	**100.0%**

Table 3.32 shows the number and percentage of students in each disability category who received and did not receive the special transportation services for which they were eligible. Students whose primary disability was Deaf/Hard of Hearing, Visual Impairment, Multiple Disability/Deaf-Blind, and Mental Retardation appeared to receive the service more than 70 percent of the time.

Students with Specific Learning Disability are shown as the least likely of all of disability categories to receive special transportation. However, with only 32 eligible students with SLD, this statistic does not bear much weight. Over 40 percent of students with Emotional Disturbance did not receive special transportation services, even though eligible.

Table 3.32: Students Whose IEP Required Special Transportation and Did/Did Not Receive Service, by Disability Category

	Did Receive Transportation		Did Not Receive Transportation		Total
Deaf/Hard of Hearing	113	75.3%	37	24.7%	150
Visual Impairment	137	73.3%	50	26.7%	187
Multiple Disabilities/Deaf-Blind	221	71.5%	88	28.5%	309
Mental Retardation	177	71.1%	72	28.9%	249
Autism	140	69.0%	63	31.0%	203
Orthopedic Impairment/ Traum. Brain Injury	143	66.8%	71	33.2%	214
Other Health Impairment	88	58.7%	62	41.3%	150
Emotional Disturbance	76	56.7%	58	43.3%	134
Speech and Language Impairment	24	49.0%	25	51.0%	49
Specific Learning Disability	9	28.1%	23	71.9%	32
Total	**1,128**	**67.3%**	**549**	**32.7%**	**1,677**

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[41] U.S. Department of Education (1999), CFR Section 300.24.

[42] This supplemental database, Special Education Transportation Services (SPEDTS), was obtained from the OIM.

Chapter 4: Summary of Findings and Recommendations

This chapter summarizes the detailed results presented throughout this report and contains a discussion of the use of these data for establishing benchmarks for service delivery in LAUSD. It concludes with recommendations regarding District maintenance of data, and a brief discussion of issues in regard to service delivery.

In summarizing the results from Chapter 3, this chapter presents what we think is the best summative indicator of the current state of special education service provision in the District and how these indicators of service break out by category of disability and by type of service. As previously mentioned, the accuracy of each of these estimates is affected by a number of factors. In addition to summary estimates of the provision of service, we discuss these limitations and our relative confidence in the numbers in this report.

While we present the statistical confidence intervals of these figures in Appendix Q, confidence intervals do not account for concerns about the data upon which these findings are based. A statistical confidence interval is a range of values which have a certain probability of containing the true discrepancy rate between services specified on the IEPs and the provision of those services (as documented in the logs or site visit observations). For instance, the 95 percent confidence interval for the IEP-log discrepancy for Resource Specialist (RSP) services is 74 to 81 percent, with the average discrepancy being 77.4 percent. That is, we are 95 percent confident that the true discrepancy rate for this service is somewhere between 74 and 81 percent. However, the statistical formula for determining this confidence interval does not factor in issues regarding the quality of the data themselves. While the interval range for the RSP discrepancy is somewhat narrow and suggests that the average of 77.4 percent is a reasonable estimate, we actually have a lower (subjective) confidence in the average because of the way service provision is documented for this service. This more subjective discussion of confidence in the *data* and what implications they have for the findings are presented in this chapter, while the statistical confidence intervals are shown in Appendix Q.

We believe the best overall summative estimate of special education service provision for LAUSD is that evidence of provision through service logs could be found for 42.7 percent of all services specified in the students' IEPs. In other words, for the majority of the special education services the District is required to provide (57.3 percent), clear evidence of provision could not be found through service log analyses.

These figures are overall *population* estimates, weighted by the disability categories of students in the sample (as described in Chapter 3), and should not be confused with the

unweighted average of 63.5 percent agreement in Tables 3.7 and 3.8.[43] It is not possible to say the extent to which this discrepancy between required IEP services and evidence of provision, as found in the logs, is the result of poor evidence (i.e. inadequately maintained or missing logs) and to what extent services are really not being provided.

This chapter also presents summary findings from our site visitation sample. Beyond the evidence of service provision found in IEP-log agreement, what can be concluded regarding service provision from the agreement between the IEP requirements and observed provision? While these data constitute much more exacting evidence of service provision, it also must be said that they are less suited to generalization to the District as a whole. This is because of the relatively low number of services that is possible to actually observe within the timeframe and resources allotted, and because some services, as described, are not well suited to direct observation.

Although limited in size, a strength of the site visitation sample is that it helps in interpreting the relatively low degree of agreement between IEP and service logs reported above (i.e., 42.7 percent). For example, for one of the most predominant special education services, RSP, the rate of log agreement shown in Column C in Table 4.1 below is much lower than what appears to be the case in regard to actual service provision observed during the site visits (Column I). While we have less confidence in the site visit service provision estimate, based on the much smaller number of cases included in the analysis, the comparison of these two numbers does seem to suggest that tracking is more of a problem than the actual provision of services in this case.

While the site visit data may seem to mitigate the low rate of agreement shown between what is required by IEPs and what is shown in the logs for this service, it should be noted that maintaining accurate records of service is also important. Logs should be considered the official record of service provision. To the extent that service log entries can be standardized, and assured as accurate, less monitoring reliance on the much more costly, and difficult, practice of direct service observation will be needed.

A final point in considering the suitability of the summary indicators found in this chapter as baseline outcome indicators for the District is that the most likely benchmark measures will come from IEP-log agreement. Only for analyses of this type is the District likely to have sufficient data to allow District-wide inference needed for comparisons over time. Limited site visitations will still be valuable as a check on log accuracy, but as log maintenance becomes better regulated, there will be less need for data tracking through direct observation.

In regard to benchmark data, because the log information provided in this baseline year was so often deficient, it is difficult to differentiate between poor service provision and poor logs. It seems likely, and the site observations seem to substantiate this, that the

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[43] The unweighted average of 63.5 percent agreement simply counts each service in the sample only once. Given that some disability categories were intentionally over-sampled, the applied weight of those disabilities has to be relatively smaller. In this way, the distribution of the disabilities in the population is indirectly replicated using weights.

agreement between IEPs and actual service provision is not as low as that indicated by the observed agreement in the logs (i.e., 42.7 percent). In this sense, the baseline estimates of compliance, as provided in this report, are probably conservative. At the same time, it is important that both service provision and service documentation be shored up.

From a recording perspective, at least, there is little evidence to suggest that the discrepancies shown above are not as problematic as reported. These are conservative estimates that are reflective of District deficiencies at least in the recording of service provision, if not always in the actual provision of services. As such, the overall IEP-log service agreement estimate provided in this report (42.7 percent), as well as the more detailed estimates by category of disability and by type of service (with the exception of Non-Public Agency services due to the small number of observations) appear to be reasonable baseline estimates.

Summary of Findings by Type of Service

A summary of findings on the agreement rates by type of service is presented in Table 4.1. Given the methodological constraints and data concerns generally presented in this report, we considered it important to indicate data elements for which we had more confidence (as marked in bold) and those for which we had less (as marked by an asterisk). Findings for which we have mid-level confidence do not have identifying marks. It is important to note that these are subjective rankings made by the research team, based on such criteria as the quality of the data, number of observations, and concerns about missing data, as further discussed below. Statistical confidence intervals are presented in Table Q-1 in Appendix Q.

The number of cases reflected in the each data element is shown in the columns adjacent to the results. As one moves from left to right on the table, the overall confidence declines as the sample sizes become smaller. At the same time, the numbers to the right provide more relevant information about actual service provision at the student level. An assessment of lower confidence does not mean that the finding has no value, but rather that concerns are raised about the data constraints faced in conducting this study. The criteria used to assign these levels of confidence to specific services are discussed below.

IEP – SESAC and IEP – Log Analyses by Service

Given the large sample for Language and Speech services and the relative clarity in IEP and log data, we have higher confidence in the findings for this service across all analyses. We also have higher confidence in the IEP-SESAC results for Adaptive PE (APE) services, for which we had over a thousand records. Although we had an adequate number of APE logs, we have relatively lower confidence in the IEP-log frequency and duration analyses due to the log quality. APE logs are character-based logs and appear to have various systems of designation. Furthermore, as no time was recorded on these logs, duration in the IEPs was associated with symbols that represented "completed" sessions. This approach may be biased toward appearing more IEP compliant.

Due to the few observations of Non-Public Agency (NPA) services across both the IEP-SESAC and IEP-log analyses, we have lower confidence in these results. In addition, we have lower confidence in all three of the IEP-log discrepancy results for RSP services, shown in Columns C, E, and G. While 530 students in our sample are shown to receive RSP services according to their IEPs, the logs for over 77 percent of these students were not forwarded to us. Given the magnitude of missing logs and not knowing the reasons for the low response, we question the accuracy of this finding as a reflection of service provision. Only 31 RSP logs provided useable frequency and duration data, which resulted in a lower confidence ranking for these analyses.

Other services for which we have lower confidence due to few observations are LRE services, for both the frequency and duration analyses, and Visual Impairment (VI) services, for the duration analysis. While we received an adequate number of logs for these services overall (214 for LRE and 252 for VI), only a fraction were useable for the duration analysis (13 percent and 8 percent, respectively) as few LRE and VI logs recorded this information.

IEP-Site Visit Service Analyses by Service

The IEP-site visit analysis is based on the fewest number of observations. However, it is through the IEP-site visit analysis that the greatest degree of certainty about the provision of service is obtained. Two general caveats apply.

First, the site visit data are likely biased towards services provided on a set schedule. The site visitors were only able to observe services that were scheduled to happen on a fixed day of the week at a relatively fixed time of day. Therefore, the analysis of service delivery is likely somewhat biased, as services provided without a set schedule may be less likely to be provided than those that are fixed. This caveat applies to some services to a greater extent than others. For instance, nearly 67 percent of LRE services for which the site visitation team obtained schedule information were provided on a flexible day at a flexible time (only 18 schedules were obtained for this service altogether).

Second, although the site visitation team intended for the observations to be unannounced, it is possible that through the phone calls to schools and providers to obtain scheduling information and by word of mouth, schools had some expectation that observations might take place. Further discussion of this methodological constraint and flexible schedules can be found in Chapter 2.

As shown in Table 4.1, a higher degree of confidence is placed on the results of the IEP-site visit agreement for the provision of APE and LAS. Site visitors observed a relatively large number of services for each of these categories with 59 and 67 observations, respectively. Given this, there is higher confidence that these observations capture an accurate picture of service provision for APE and LAS.

Table 4.1: Summary of Service Analyses by Service and Confidence Levels <1>

Bold = Higher Confidence; * = Lower Confidence

	A	B	C	D	E	F	G	H	I	J	K
	IEP-SESAC Service Agreement		IEP-Log Service Agreement		IEP-Log Frequency Agreement		IEP-Log Duration Agreement		IEP-Site Visits Service Agreement		
Service Category	% of services in both the IEPs and SESAC	N	% of services for which there was evidence of service provision	N	% of services with monthly frequency at least equal to IEP	N	% of services monthly duration at least equal to IEP	N	% of observed services provided <2>	N of Service Obs	N of Students
Adaptive PE	**66.4%**	1,053	68.9%	1,053	75.9%*	648	69.0%*	630	**86.5%**	59	58
Deaf and Hard of Hearing	71.3%	342	82.7%	342	53.0%	200	62.2%	90	72.7%	33	24
Language and Speech	**65.4%**	1,034	**75.5%**	1,034	**48.1%**	680	**52.8%**	659	**82.2%**	67	62
LRE Services	47.2%	214	50.0%	214	35.0%*	40	44.4%*	27	63.2%*	19	16
Non-Public Agency Services	27.5%*	40	55.0%*	40	86.4%*	22	100%*	22	n/a		
Occupational Therapy	63.4%	382	77.0%	382	43.7%	254	59.4%	239	81.1%	37	31
Physical Therapy	55.5%	137	62.0%	137	46.2%	65	52.7%	55	77.2%*	22	14
RSP	77.5%	530	22.6%*	530	71%*	31	74.2%*	31	93.6%	46	43
School Mental Health Services	59.3%	332	41.0%	332	59.6%	104	71.8%	103	76.3%*	21	20
Visual Impairment Services	56.0%	252	74.2%	252	48.1%	156	60.0%*	20	80.6%	36	21

<1> See Table Q-1 in Appendix Q for the 95 percent confidence intervals.

<2> Complete/incomplete sessions and student absences/no shows counted towards service provision.

A lower level of confidence can be placed in the results of the IEP-site visit analysis for the provision of LRE, PT, and SMH, with only 19, 22, and 21 observations, respectively. Given the lower number of observations for these services, more caution is needed in interpreting the results. The site visit section of Chapter 2 describes some of the reasons why so few observations were obtained for these service categories.

It is also important to consider the number of unique students reflected in the observations for each service category. As described in Chapter 2, the study team instructed the site visitors to observe students more than once for DHH, LRE, PT, VI, and OT services. This was done to compensate for the difficulty in observing infrequent services such as PT, services with flexible schedules such as LRE, and other services for which the number of observations were low. Of the 270 students observed, 44 students were observed twice, and 13 students were observed three times. This has an effect on the confidence one can have in the analyses for certain service categories. If, for example, a particular student is not receiving DHH services indicated on his or her IEP, and service delivery for this student was observed twice, the IEP-site visit discrepancy could be inflated because a student missing a service in the first observation also may be less likely to receive services during the second observation. Column K shows the number of unique students for each service category.

Comparison of IEP-Log and IEP-Site Visit Service Analyses by Service

It is useful to look at the relationship between findings based on the IEP-log service agreement (Column C) and those based on the IEP-site visit service data (Column I). To the extent logs provide an accurate picture of what is actually provided, the agreement rates between these two measures of service provision and what is shown on the IEP should be similar. Logs are a paper indication that a service has been provided in accordance with a student's IEP, and the site visits allow direct observation of this service provision. Therefore, some alignment between these two indicators for each service category might be expected.

The data in Columns C and I suggest problems for the District both in terms of log documentation and in service provision. However, the somewhat greater service provision agreement using the site visits suggests that actual service provision is not quite as inconsistent as the log analysis suggests.

Across some of the individual services, there is alignment between the service agreement based on the log analysis and those based on the site visits. For example, Column C shows 75.5 percent agreement between IEPs and log data for LAS services. Similarly, Column I shows that 82.2 percent of LAS services indicated in the IEPs were provided based on the site visit observations.

However, the comparison of these two methods of analysis raises questions about the use of logs as reasonable estimates of actual service provision for SMH (41 percent to 76.3 percent) and RSP (22.6 percent to 93.6 percent). The log analysis for SMH, and RSP indicate agreement in services that appear lower than the analysis based on the site visits.

One possible explanation for this apparent mismatch in findings is that the logs for these services may be especially inadequate. Providers for these services may be less likely to keep an accurate, or any, record of the services they provide, resulting in much lower agreement rates from the logs than in the actual provision of services. Furthermore, based on schedule data obtained during the site visits, SMH services appear to have more flexible schedules than other service categories. Of the 25 SMH schedules obtained, 44 percent showed that services were provided on a fixed day, but flexible time. As the site visitors were limited to observing services on fairly fixed schedules, and low number of students represented in these observations, it is not surprising that the site visit findings provide a more optimistic picture of service provision.

Summary of Findings by Disability Category and Confidence Levels

The agreement rates for service provision were also analyzed by disability category, and a summary of these findings is presented in Table 4.2. Confidence levels around these findings have been determined based on the *subjective* confidence levels for the services in Table 4.1, weighted by the distribution of services received by students in each disability category. Confidence rankings by disability category range from 1 to 3, with 3 reflecting higher confidence. For instance, as explained above, APE and LAS services were given a higher confidence level for the IEP-SESAC analysis. As APE and LAS services constitute over 87 percent of the services that students with Mental Retardation (MR) receive, the IEP-SESAC agreement rate of 67.8 percent for MR has a high confidence ranking of 2.9. Again, these rankings are subjective, based on the research team's assessment of the quality of the service data, number of observations, and concerns about missing data. Statistical confidence intervals of discrepancy rates by disability category are presented in Table Q-2 in Appendix Q.

Using this approach, the confidence levels by disability category for the IEP-SESAC and IEP-log analyses were fairly similar. The findings for Speech and Language Impairment (SLI) received a higher score in both analyses, due to the confidence levels around LAS services (74 percent of the services that students with SLI receive are LAS). For the frequency analyses, the variation in confidence levels become greater, with a low of 1.4 for Specific Learning Disability (SLD) and a high of 2.5 for SLI. Again, these are attributed to the confidence levels placed on the predominant services received by students with these disability categories: RSP and LAS, which show lower and higher confidence, respectively, in Table 4.1.

Likewise, the confidence levels around the results from the duration analysis vary from 1.3 for Visual Impairment (VI) to 2.5 for SLI. It is also important to note the low number of SLD observations for the frequency and duration analysis, which also reduces confidence. Due to the lower confidence placed on the School Mental Health site visit observations, the confidence ranking for students with Emotional Disturbance (ED) for this analyses is also lower (1.4).

Comparison of IEP-Log and IEP-Site Visit Service Analyses by Disability

As both the IEP-log (Column C in Table 4.2) and IEP-site visit (Column I in Table 4.2) service analyses attempt to estimate the percentages of services that are provided by disability category, it is helpful to compare the results. However, it is important to understand that two different data sources –logs and site visits – were used in estimating these percentages, and therefore comparisons are not straightforward. Nor should one necessarily place a higher value on one analysis over the other, as they provide a different perspective and have their own strengths and weaknesses (see Chapter 2). The alignment between the log and site visit analyses is fairly similar across some disability categories. For instance, 77.4 percent and 73.5 percent of the services that students who are Deaf/Hard of Hearing are eligible to receive are provided according to the IEP-log and IEP-site visit analysis, respectively.

However, for SLD, ED, Other Health Impairment, and MR, the findings are particularly disparate, with the differences for ED and SLD on the extreme end. Again, these differences can be explained by examining their primary services: SMH for students with ED and RSP for students with SLD. Analyzing the logs for these services, we cannot discern what degree of the service discrepancies are due to poor log maintenance and to actual problems in service provision. While the site visit observations present a more positive picture of service delivery for these disability categories, the numbers of observations are much smaller than those used for the IEP-log analysis. As mentioned previously, the visits were biased towards services that were on a fairly fixed schedule, and one might assume that services provided on a fixed schedule are more likely to be provided than those that are not.

Table 4.2: Summary of Service Analyses by Disability Category and Confidence Levels <1>

Range from 1 (low confidence) to 3 (high confidence)

	A	B	C	D	E	F	G	H	I	J	K
	IEP-SESAC Service Agreement		**IEP-Log Service Agreement**		**IEP-Log Frequency Agreement**		**IEP-Log Duration Agreement**		**IEP-Site Visits Service Agreement**		
Disability Category	% of services in both the IEPs and SESAC	N	% of services for which there was evidence of service provision	N	% of services with monthly frequency at least equal to IEP	N	% of services monthly duration at least equal to IEP	N	% of observed services provided <2>	N of Service Obs	N of Students
Autism	64.4% (2.6)	514	68.1% (2.3)	514	58.2% (1.9)	299	64.6% (1.9)	288	78.2% (2.5)	32	29
Deaf/Hard of Hearing	68.1% (2.3)	474	77.4% (2.2)	474	55.6% (2.1)	277	63.5% (2.1)	170	73.5% (2.2)	34	26
Emotional Disturbance	60.7% (2.1)	308	39.3% (2.1)	308	70.3% (1.8)	91	77.3% (1.8)	88	80.0% (1.4)	20	19
Mental Retardation	67.8% (2.9)	401	69.6% (2.4)	401	56.6% (1.8)	242	59.8% (1.8)	229	92.8% (2.8)	28	27
Multiple Disability/Deaf-Blind	65.9% (2.6)	549	75.4% (2.2)	549	54.0% (1.8)	337	58.2% (1.7)	294	90.7% (2.5)	43	32
Orthopedic Impairment/Traum. Brain Injury	56.6% (2.4)	700	60.6% (2.1)	700	59.0% (1.5)	317	60.8% (1.5)	283	73.9% (2.1)	46	32
Other Health Impairment	68.2% (2.4)	387	55.0% (2.2)	387	53.3% (1.7)	167	60.0% (1.7)	160	81.8% (2.3)	33	23
Specific Learning Disability	79.2% (2.2)	231	33.8% (2.1)	231	51.1% (1.4)	45	53.5% (1.4)	43	92.6% (2.1)	27	26
Speech and Language Impairment	72.2% (2.8)	313	65.8% (2.7)	313	60.9% (2.5)	174	56.1% (2.5)	171	81.3% (2.7)	32	28
Visual Impairment	57.9% (2.4)	439	65.8% (2.1)	439	56.6% (1.7)	251	64.0% (1.3)	150	75.5% (2.3)	45	28
Overall Population Estimate			**42.7%**						**89.0%**		

<1> See Table Q-2 in Appendix Q for the 95 percent confidence intervals.
<2> Complete/incomplete sessions and student absences/no shows counted towards service provision.

Policy Implications of Confidence Levels

It is important to discuss what implications these subjective confidence levels have for establishing benchmarks of service delivery in LAUSD. In other words, how useful are the data in establishing outcomes? IEP-log findings with higher and mid-confidence levels should be considered reliable reflections of service delivery in LAUSD. Although some of the findings have a lower confidence ranking than others, this does not necessarily preclude their use in setting standards.

There are two outcomes to consider: service delivery and data maintenance. As reiterated in this report, the IEP-log analyses are based on the *log data,* which in turn are expected to represent actual service provision. If the logs are not well-maintained and standardized, statements about service delivery will continue to be compromised by data concerns. In this drive for accountability, how well the services are documented should be considered along with whether the services are provided. Accordingly, findings with lower confidence are helpful in constructing outcomes for data maintenance.

The lower confidence levels assigned to RSP in the IEP-log service analysis represent such a situation, particularly since the IEP-site visit analysis shows the opposite picture (i.e., 22.6 percent vs. 93.6 percent agreement). One objective to consider for next year might be to reduce the percentage of missing RSP records to the overall average (36.5 percent) and modify the log format so that the logs clearly document relevant information to be used in the frequency and duration analyses.

Such data modification objectives regarding frequency and duration should also be considered for APE, LRE, and VI logs. If such changes are implemented in time for the second study, we will likely see higher agreement rates. However, we will not be able to determine if the higher agreement is due to true changes in delivery of services or better documentation.

One drawback of this strict accountability of service delivery is that it may discourage innovative practices in providing services. As discussed, LRE and RSP services may be more likely to be provided in a flexible manner (e.g., consultation, services provided in the classroom as needed), and therefore not lend themselves to easy documentation. While fixed schedules may be more easily recorded and observed by site visitors, we need to balance the need for accountability with allowing services to be provided in a manner appropriate to the child's needs. A challenge for the District will be to accurately track service provision, to ensure that children are actually receiving the services to which they are entitled, without stifling their creative provision.

Given that the findings from the site visits are biased towards services with fixed schedules and have few observations, the findings should not be generalized to the District as a whole. As such, one might question the value of these primarily descriptive data. The site visit observations are an important check against the service data obtained from the logs, particularly given the questionable nature of the log data. Until the logs

themselves record service provision accurately and comprehensively (i.e., with frequency and duration), the site visits will be necessary to assess indirectly how closely the logs seem to reflect actual service provision. We expect that the site visits will be phased out as the log data are strengthened, with some spot checks.

Recommendations for District Data Maintenance

Central Computerized Database for IEPs

LAUSD is presently using the Welligent Web-based IEP Management System to manage IEPs. At the time the study was conducted, the usability of this system for the purpose of data collection and analysis was fairly limited. No central database was available, and Welligent IEPs in the study sample were simply printed off and provided to the research team. While the Welligent IEPs were obviously easier to read, many referred to an earlier IEP for information relevant for this study. To effectively utilize the Welligent System for future analyses, LAUSD needs to monitor the quality of the computerized IEPs and ensure that all IEP information entered into the database.

Standardized Logs and Central Computerized Database for Documenting Service Provision

We recommend that a similar Web-based system be implemented to document service provision. With such system, providers would access their account and record each service session for every student in their caseload. This would replace the pen-and-paper approach currently in place and allow for quicker and more thorough data analyses. At the very least, logs *must* be standardized across all services, so that the number of sessions, duration, and status of the sessions are clearly documented with no ambiguity across all logs. The variations in the provider logs across service types, and even variations *within* the same service type, made data entry and analysis extremely challenging. The log format for Language and Speech generally provided the necessary information for the analyses (provided that they were completed correctly and clearly).

Issues with Service Delivery

During the course of the observation data collection, the research team identified five issues that may impact the provision of service in LAUSD. It may be useful for LAUSD to explore some of these issues more thoroughly.

Providers Attending IEP and Other Meetings

As mentioned in Chapter 3, 17 of the students in the site visit sample did not receive their scheduled service because the service provider was attending a meeting. In 11 of these cases, the service provider was attending an IEP meeting. LAUSD should consider how to accommodate the need for providers to attend meetings and for students to consistently receive their services. It may be necessary for IEP and other meetings to be held outside of school hours.

Shortened Days and Staff Development Days

When schools have a shortened day or a staff development day, services are not always provided to students for the full amount of time for which they are scheduled. During the observation data collection, site visitors noted that on four occasions, a scheduled service was not provided for the full amount of time because it was a shortened day, and one session was not provided at all. On three other occasions, only partial service sessions were provided due to staff development. LAUSD should consider reviewing the policy for the provision of service on shortened days and staff development days.

Services Provided without a Fixed Schedule

LAUSD should review the number and types of services that are provided without a set schedule to determine if more of these services could be provided on a scheduled basis. It may be necessary to establish a working group of providers, teachers, students and parents to discuss the costs and benefits of having a rigorous schedule for the provision of certain services.

APE Services

There may be some confusion at the school level about what constitutes eligibility for APE services. In some cases, when site visitors called to obtain schedule information for students whose IEP indicated that they were eligible for APE, the school staff stated that the students had met the State Physical Education requirement and therefore, was no longer receiving APE. According to OIM, "meeting the state physical education requirement" is not an acceptable reason for a student to no longer receive APE when it is specified on the student's IEP. School staff may be under the impression that if a student is able to meet the State Physical Education requirement then the student is no longer eligible for APE. LAUSD should provide clarification to school staff and providers about eligibility determinations for APE services.

Communication with Service Providers

LAUSD should explore the possibility of improving the communication between the schools and the service providers.

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