



Title I and IDEA as Complementary Federal Responses: Distinguishing Opportunity-Mediated and Opportunity-Independent Underachievement

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Distinguishing Opportunity-Mediated and
Opportunity-Independent Underachievement

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Abstract

Title I and IDEA are complementary federal responses to different sources of low achievement. Title I targets opportunity-mediated underachievement, while IDEA targets persistent underachievement for which deficits in ordinary educational opportunity are not the primary explanation. A simple framework and stylized simulation show that performance-based IDEA increasingly converges toward the same opportunity margin already served by Title I.

Keywords: Title I; IDEA; special education; persistent underachievement; educational opportunity

Introduction

Why does federal education policy maintain both Title I and the Individuals with Disabilities Education Act (IDEA), including the Specific Learning Disability (SLD) classification within it, as separate federal granting mechanisms? This commentary argues that the answer lies in the distinct causal channels to which the statutes are addressed. Title I is organized around the premise that poverty-linked opportunity deficits depress achievement, so its theory of action is compensatory and seeks to strengthen the educational environments in which children learn (U.S. House of Representatives, Office of the Law Revision Counsel 2026). IDEA serves a different function. It is an individualized entitlement tied to a free appropriate public education (FAPE) and triggered when persistent learning difficulty warrants special education services by reason of disability (U.S. Department of Education 2026a). For SLD in particular, federal regulations exclude learning problems that are primarily the result of environmental, cultural, or economic disadvantage, and they require states to adopt criteria that can include evidence from a child's response to scientific, research-based intervention (U.S. Department of Education 2026b,c,d,e). In this way, IDEA conditions eligibility on underachievement for which deficits in ordinary educational opportunity are not the primary explanation. Taken together, then, these statutes reflect a division of labor in which one program addresses low achievement through the opportunity channel and the other addresses persistent underachievement for which deficits in ordinary educational opportunity are not the primary explanation, as reflected in IDEA's regulatory safeguards.

The concern we address here is rarely advanced as a single fully explicit proposal in published policy documents, but it often appears as a recurring pressure within education discourse, policy talk, and implementation practice. If poverty is a major predictor of achievement and low performance is easy to observe, why maintain a distinct disability entitlement at all? IDEA's individualized framework is sometimes treated as too indeterminate, too administratively burdensome, or too weakly tied to observable performance to function well in practice. From that vantage point, there is pressure to route educational need

more directly through poverty, low achievement, or achievement adjusted by a limited set of measured opportunity proxies. We engage that pressure here because it surfaces repeatedly in adjacent domains, including RTI (Response to Intervention) and MTSS (Multi-Tiered Systems of Support) discussions and empirical approaches to disproportionality that use adjusted achievement as a practical benchmark of need for special education services (Fletcher and Vaughn 2009; Learning Disabilities Association of America 2006; Morgan et al. 2012; Spencer et al. 2014). This matters beyond special education law because the frame used to define need shapes how researchers interpret inequality, how administrators justify support, and how policymakers think about disproportionality.

That recurring pressure can be expressed through two simplifying frameworks. Under one, poverty itself is the relevant basis for identifying educational need, and federal aid is allocated on the basis of poverty-linked disadvantage. Here, federal support is justified because poverty-linked disadvantage depresses educational opportunity and, in turn, achievement. Title I fits naturally within this framework, but IDEA loses any clearly independent role because need is routed through the opportunity channel. Under the second, low achievement itself is treated as the relevant basis for identifying need, so students who perform poorly become eligible for federal aid regardless of the source of their underachievement. This view can appear attractive when IDEA is judged primarily by whether it captures low performers, yet it also pulls IDEA toward a Title I-like logic, since poverty is itself a major cause of low achievement. In both cases, the distinctiveness of the dual federal framework weakens because one of the two granting mechanisms no longer has an independent justification.

Our central claim is that the statutory framework is stronger because it preserves a non-redundant justification for both granting mechanisms. Title I and IDEA are distinct policy responses to different sources of low achievement. Title I addresses the portion of lower achievement associated with poverty-linked opportunity constraints. IDEA addresses persistent learning difficulty for which deficits in ordinary educational opportunity are not the primary explanation. The same child may be served by both programs, but the eligibility

questions differ. One asks how achievement might change under stronger opportunity conditions. The other asks what underachievement remains when deficits in ordinary educational opportunity are not the primary explanation. This division of labor gives each statute an independent policy role and clarifies why IDEA will often appear incoherent when judged through a framework that expects supports to flow directly from observed low achievement alone.

We develop this argument in two steps. First, a simple achievement production framework distinguishes underachievement linked to deficits in general educational opportunity from persistent underachievement for which such deficits are not the primary explanation. Second, we use a stylized allocation simulation to illustrate how that distinction can either be preserved or eroded in implementation once policymakers must work with observable signals rather than the latent constructs themselves. Because neither opportunity nor disability is directly observed in practice, allocation decisions often rely on measures such as SES and observed performance. The simulation therefore uses SES only in this narrower operational sense and tracks how alternative IDEA rules reshape the distribution of the combined federal funding portfolio across students facing high latent opportunity disadvantage and disabled students. It is not a model of legal eligibility or downstream learning outcomes. Instead, it asks whether alternative screening rules preserve the policy boundary between the two programs when policymakers must act on observed signals. The concluding implications return to the main policy question: IDEA has a distinct justification, but that complementarity depends on an implementation regime that preserves the boundary between the two programs.

Conceptual framework: opportunity and persistent underachievement

Let O_i be a latent theoretical construct that captures educational opportunity. This construct is well-defined in principle but empirically unobserved in survey or administrative data. We do not define opportunity here as every contextual feature that may affect

achievement over the full distribution of advantage. Instead, we define it relative to an institutional benchmark of *adequate opportunity* that follows the regulatory logic of IDEA. In this usage, opportunity refers to the general educational conditions against which disability-related need is judged, including access to appropriate general education instruction, access to targeted evidence-based supports short of individualized special education services, and the out-of-school and school-based conditions that IDEA’s exclusionary logic treats as alternative explanations for low performance (U.S. Department of Education 2026b,d,e). What counts as “adequate” is not fixed by nature. It is shaped by policy, administrative convention, and social judgment. In that sense, the opportunity benchmark is socially constructed, and disability classification inherits that social construction in a quantitatively concrete way through the placement of the threshold itself (Anastasiou and Kauffman 2011; Sleeter 1986). Because that benchmark is implemented in real institutional settings, disability identification can also vary with local context and school composition (Elder et al. 2021; Hibel et al. 2010).

Then consider a simple achievement production model:

$$A_i = f(O_i, \mathbf{1}\{O_i \geq \tau\}) + \varepsilon_i,$$

where A_i denotes achievement for student i , O_i denotes opportunity, $\mathbf{1}\{O_i \geq \tau\}$ indicates whether opportunity has reached the relevant adequacy threshold, and ε_i denotes the component of achievement not explained by opportunity once that benchmark has been met. We remain agnostic about the functional form of $f(\cdot)$. What matters is the conceptual separation between opportunity-driven and residual components after the adequacy benchmark has been crossed.

In plain terms, the question is whether low achievement reflects conditions that better general educational opportunity could change, or difficulty that persists when deficits in those ordinary educational conditions are not the primary explanation.

In this formulation, $f(O_i, \mathbf{1}\{O_i \geq \tau\})$ is the portion of achievement that would change if opportunity were changed in ways relevant to meeting the adequacy benchmark. The

residual ε represents the achievement variation that remains once opportunity-linked causes have been accounted for in this bounded, policy-relevant sense. Low values of ε_i would indicate under-performance that is not well explained by deficits in general educational opportunity as conventionally defined by policy. We emphasize that this is a conceptual decomposition, not a claim that ε_i is directly observed in administrative data.

This decomposition clarifies the distinct policy margins. Title I is an opportunity endowment policy. Its theory of action is that shifting educational opportunity shifts achievement through $f(O_i, \mathbf{1}\{O_i \geq \tau\})$ (U.S. House of Representatives, Office of the Law Revision Counsel 2026). IDEA, and SLD identification within it, is organized around a different margin. The motivating concern is that the student's learning needs persist when deficits in ordinary educational opportunity are not the primary explanation. Modern identification procedures attempt to operationalize this distinction by requiring documentation of appropriate instruction and, often, evidence that the student has failed to make adequate progress in response to targeted interventions (U.S. Department of Education 2026b,d,e). These safeguards can be understood as procedural attempts to determine whether low achievement is better explained by deficits in ordinary educational opportunity or whether an individualized entitlement is warranted. Once that threshold is crossed, IDEA provides specially designed instruction and related services. Thus, the residual logic pertains to identification, while the entitlement that follows may itself expand opportunity through individualized services.

This distinction leaves a practical implementation problem. Neither O_i nor ε_i is directly observed by policymakers or practitioners, and the relevant threshold is itself institutional rather than natural. Title I therefore uses poverty-linked formulas to target the opportunity margin indirectly, while IDEA relies on evaluation procedures, observed achievement, and evidence of response to intervention to judge whether underachievement is better explained by deficits in ordinary educational opportunity or instead reflects persistent disability-related need. In the simulation below we use SES in this limited operational sense. The point is to illustrate that implementation has to work with observable proxies, and that those proxies

can either preserve or erode the statutory division of labor (for how this proxy problem can influence disproportionality estimates, see Fish et al. 2026; Souto-Maior et al. 2026).

Simulation illustration: IDEA-Title 1 complementarity under varied IDEA allocation rules

To make the implementation question concrete, we simulate a fixed federal portfolio in which Title I is assigned first and IDEA is then allocated under two alternative rules. Under an achievement-based rule, IDEA is assigned to students with the lowest post-Title I performance. Under a residual-based rule, IDEA is assigned to students with the lowest post-Title I performance net of the opportunity signal available to policymakers. We examine both a benchmark environment in which opportunity is observed directly and a more realistic environment in which policymakers rely on SES as a noisy proxy.

The simulation answers two questions. First, when opportunity strongly shapes achievement, does routing IDEA through low performance cause it to concentrate on the same students already served by Title I? Second, when opportunity must be proxied by SES, how much of IDEA’s distinct role can still be preserved through residual-based targeting? Additional design details appear in Appendix A.

Figure 1 shows a clear pattern. As the opportunity-achievement relationship strengthens, an achievement-based IDEA rule increasingly channels the combined federal portfolio toward the same opportunity-disadvantaged students already reached by Title I. A residual-based rule produces a different allocation profile. Because it screens students after netting out the available opportunity signal, it directs a larger share of the combined portfolio to disabled students and keeps IDEA more distinct from Title I. When policymakers must rely on SES rather than observed opportunity, targeting becomes less precise under both rules. Even so, the residual-based rule continues to preserve more of IDEA’s disability-oriented channel across the simulated range.

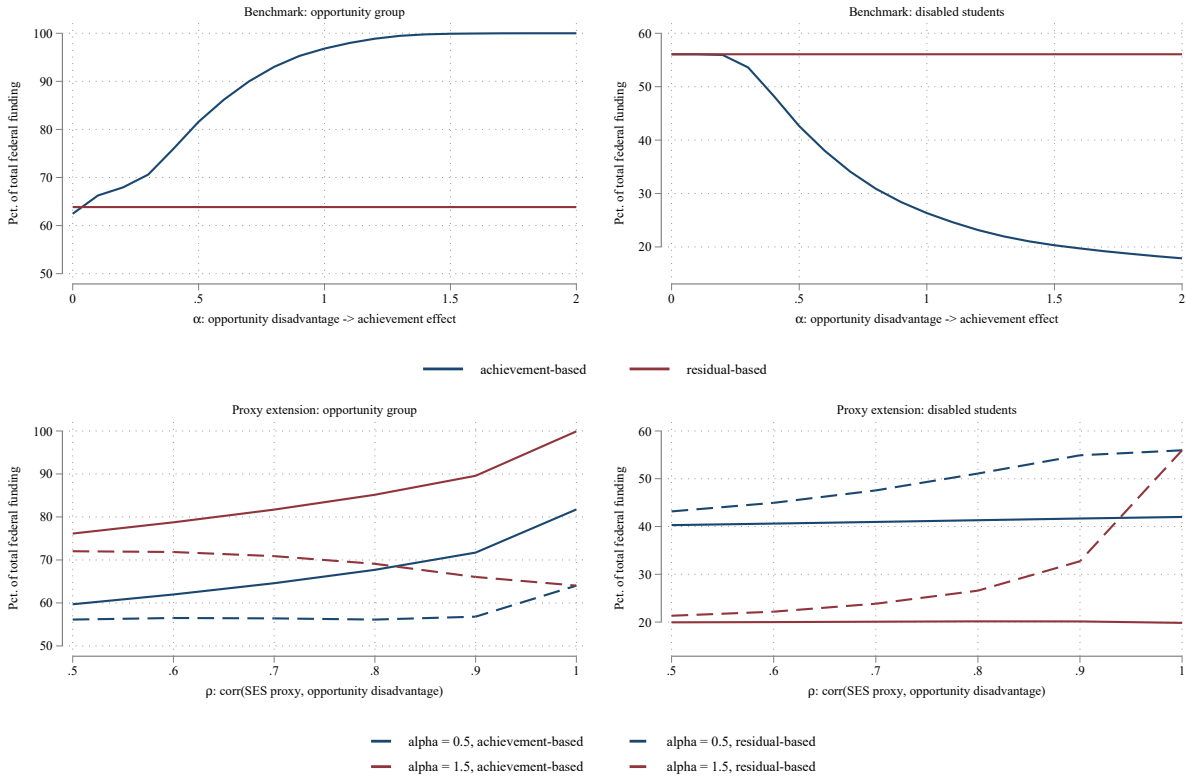


Figure 1: Alternative IDEA rules reshape the combined federal portfolio. Each panel shows the share of total federal funding (Title I plus IDEA) reaching the indicated group under two IDEA allocation rules, holding Title I and IDEA budgets fixed. The top row assumes policymakers observe opportunity directly and varies the opportunity-performance parameter α ; color denotes the IDEA rule. The bottom row assumes policymakers observe SES as a proxy for opportunity and varies the SES-opportunity correlation ρ ; color denotes α and line type denotes the IDEA rule. Across settings, achievement-based IDEA more closely tracks the Title I opportunity margin, while residual-based IDEA directs a larger share of funding to disabled students.

Results. The observed-opportunity environment illustrates the paper’s core complementarity claim. When opportunity is measured directly, routing IDEA through low post-Title I performance causes the combined federal portfolio to tilt increasingly toward the same opportunity-disadvantaged group already served by Title I as α rises. The residual-based rule behaves differently: because it nets out the available opportunity signal before assigning IDEA, it leaves the portfolio much less concentrated on the Title I margin and directs a larger share of total federal funding to disabled students.

The SES-proxy environment illustrates what happens when policymakers must target opportunity indirectly rather than observe it directly. As ρ falls, both Title I allocation and the residual-based IDEA screen become less precise. Even so, over the coded range, the residual-based rule continues to direct more total federal funding to disabled students than the achievement-based rule. That disability-oriented advantage narrows as the SES signal becomes less informative, especially when the opportunity-achievement relationship is strong. This occurs because a noisier SES proxy makes it harder both for Title I to isolate the opportunity margin and for the residual-based IDEA rule to identify students with true opportunity-independent lower achievement, making the residual rule less equipped to isolate the disability-specific channel. In plain terms, once IDEA is routed directly through low performance, it begins to chase the same students Title I was designed to reach; residualizing on the available opportunity signal helps keep the two programs from collapsing into the same allocation logic. The broader implication is that the complementarity between Title I and IDEA depends not only on their distinct conceptual roles, but also on implementation rules that preserve that distinction when opportunity is proxied.

Policy Implications

The simulation matters for policy only insofar as it clarifies how implementation can preserve or blur the statutory boundary developed above. With that limitation in mind, we identify four policy implications.

1. IDEA is not reducible to Title I. The programs are complementary rather than substitutable. Title I is designed to shift opportunity endowments in high-poverty settings (U.S. House of Representatives, Office of the Law Revision Counsel 2026). IDEA is an individualized entitlement tied to FAPE and invoked when learning needs persist and are not primarily explained by deficits in ordinary educational opportunity, as reflected in evidence on instruction and targeted supports (U.S. Department of Education 2026a,d,e). The same students may receive both supports, but they do so for different reasons.

2. Complementarity depends on implementation. The statutory rationale for IDEA is not self-executing. Because opportunity and disability are not directly observed, allocation rules and screening practices matter. An IDEA regime that routes aid through low achievement alone will increasingly duplicate Title I wherever poverty strongly predicts performance. An IDEA regime that targets persistent underachievement net of the available opportunity signal, together with documentation of appropriate instruction and intervention, better preserves IDEA's distinct role.

3. Use SES as a practical proxy, not as the theory of need. In practice, administrators need observable indicators. SES can help approximate the poverty-linked channel that Title I addresses, and in that limited sense it can be useful for implementation. But SES does not by itself establish adequate opportunity or disability-related need. Its value is practical and allocative, not conceptual.

4. Use MTSS and evidence-based intervention to establish the policy boundary. Investments in multi-tiered systems of support are not only service delivery mechanisms. They generate evidence about whether strengthening opportunity changes achievement. When achievement responds, the case remains within a compensatory logic. When it does not, individualized supports under IDEA may be warranted, consistent with the emphasis on intervention processes and documentation in SLD determination (U.S. Department

of Education 2026b,d,e).

Conclusion

Federal education policy rests on a logic of two supports that correspond to two sources of low achievement. Title I assumes that unequal opportunity produces predictable disparities and seeks to shift opportunity endowments in high-poverty settings (U.S. House of Representatives, Office of the Law Revision Counsel 2026). IDEA reflects the premise that some persistent underachievement is not reducible to opportunity alone and therefore warrants individualized entitlements tied to FAPE and structured evaluation and documentation (U.S. Department of Education 2026a,d,e).

The programs often serve the same children, but they are not redundant in purpose. For education researchers and policymakers, the practical implication is that debates about need, identification, and support should not collapse compensatory and disability-based logics into the same category. The central policy question is therefore not whether one program can absorb the other, but whether implementation preserves the distinction between poverty-linked underachievement and persistent underachievement for which deficits in ordinary educational opportunity are not the primary explanation. In the stylized allocation exercise developed here, IDEA is most clearly complementary to Title I when it targets persistent underachievement net of the available opportunity signal rather than low achievement alone.

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A Simulation design and parameterization

This appendix describes the simulation used in Figure 1. The purpose of the exercise is to compare how alternative IDEA allocation rules reshape a fixed combined federal portfolio once Title I has already operated.

A.1 Setup

For each parameter configuration, we simulate a cohort of $N = 100,000$ students. Baseline achievement for student i is

$$Y_{0i} = -\alpha O_i - \beta D_i + \varepsilon_i, \tag{1}$$

where O_i denotes latent opportunity disadvantage, $D_i \in \{0, 1\}$ denotes disability status, and $\varepsilon_i \sim N(0, \sigma^2)$ captures residual variation in achievement. Higher values of O_i indicate greater disadvantage. We hold fixed $\beta = 1.0$, disability prevalence $P(D_i = 1) = 0.12$, and $\sigma = 0.15$.

In the proxy-information environment, policymakers do not observe O_i directly. Instead, they observe an SES proxy

$$S_i = \rho O_i + \sqrt{1 - \rho^2} \nu_i, \quad (2)$$

where $\nu_i \sim N(0, 1)$. Larger ρ implies that SES is a more informative proxy for opportunity.

A.2 Funding environment

We fix average budgets of \$1,000 per student for each program, so that

$$B^{T1} = N \times \$1,000 \quad \text{and} \quad B^{IDEA} = N \times \$1,000.$$

Title I is assigned first. In the observed-opportunity environment, Title I targets the top 30 percent of the latent opportunity-disadvantage distribution. In the SES-proxy environment, it targets the top 30 percent of the observed SES distribution. Let Z_i denote the targeting signal, where $Z_i = O_i$ when opportunity is observed and $Z_i = S_i$ when policymakers rely on SES. If c_Z is the 70th percentile of Z_i and n_{T1} students satisfy $Z_i \geq c_Z$, then

$$F_i^{T1} = \frac{B^{T1}}{n_{T1}} \mathbf{1}\{Z_i \geq c_Z\}. \quad (3)$$

We allow Title I to affect the screening measure later seen by IDEA:

$$Y_{Ti} = Y_{0i} + \tau F_i^{T1}, \quad (4)$$

where $\tau = 0.031$ maps each \$1,000 of Title I funding into a 0.031 standard-deviation increase in performance. This is an illustrative calibration. The simulation is designed to compare targeting regimes, not to estimate the true treatment effect of either program.

A.3 Alternative IDEA rules

IDEA is allocated after the Title I step.

Under the achievement-based rule, IDEA serves the bottom decile of the post-Title I performance distribution. If c_Y is the 10th percentile of Y_{Ti} and n_{IDEA}^{ach} students satisfy

$Y_{Ti} < c_Y$, then

$$F_i^{IDEA,ach} = \frac{B^{IDEA}}{n_{IDEA}^{ach}} \mathbf{1}\{Y_{Ti} < c_Y\}. \quad (5)$$

In contrast, under the residual-based rule, IDEA serves the bottom decile of residual underachievement after netting out the opportunity signal available to policymakers. In the simulation, this is operationalized as the residual from a simple linear projection of post-Title I performance on the available signal Z_i . Define the residual underachievement for student i as

$$R_i(Z) = Y_{Ti} - \widehat{E}[Y_{Ti} | Z_i], \quad (6)$$

where the notation $R_i(Z)$ emphasizes that this residual depends on which signal Z_i is available for the projection.

If c_R is the 10th percentile of $R_i(Z)$ and n_{IDEA}^{res} students satisfy $R_i(Z) < c_R$, then

$$F_i^{IDEA,res} = \frac{B^{IDEA}}{n_{IDEA}^{res}} \mathbf{1}\{R_i(Z) < c_R\}. \quad (7)$$

The SES proxy matters differently across the two rules. Under the achievement-based rule, it matters indirectly through the earlier Title I allocation. Under the residual-based rule, it matters both through Title I and through the IDEA screen itself because the residualization uses the available proxy rather than true opportunity.

A.4 Outcomes

For IDEA rule $m \in \{\text{ach}, \text{res}\}$, total federal funding is

$$F_i^{tot,m} = F_i^{T1} + F_i^{IDEA,m}. \quad (8)$$

Let c_O denote the 70th percentile of the latent opportunity-disadvantage distribution. We report two allocation outcomes:

$$\Phi_O^{(m)} = \frac{\sum_i F_i^{tot,m} \mathbf{1}\{O_i \geq c_O\}}{\sum_i F_i^{tot,m}}, \quad (9)$$

the share of the combined portfolio reaching the top 30 percent of latent opportunity disadvantage, and

$$\Phi_D^{(m)} = \frac{\sum_i F_i^{tot,m} \mathbf{1}\{D_i = 1\}}{\sum_i F_i^{tot,m}}, \quad (10)$$

the share of the combined portfolio reaching disabled students.

These are evaluation outcomes rather than eligibility definitions. The simulation focuses on how allocation rules reshape the combined federal portfolio.

A.5 Exercises shown in Figure 1

We implement two exercises.

First, in the observed-opportunity environment, we set the policy signal equal to true opportunity and vary $\alpha \in [0, 2]$. This isolates the complementarity question under perfect information.

Second, in the SES-proxy environment, we replace O_i with S_i for policy targeting, vary $\rho \in [0.5, 1]$, and plot results for $\alpha = 0.5$ and $\alpha = 1.5$. This shows how proxy quality changes implementation when the opportunity-achievement relationship is relatively weak and relatively strong.