

# The Case for Localized Financial Literacy Programming

*Why Learners Respond Best When Financial Education Reflects  
Their Surroundings, and Why One-Size-Fits-All Curricula Fall  
Short*

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## **EXECUTIVE SUMMARY**

Financial literacy education is expanding faster than at any point in American history, yet the content filling these newly mandated classrooms describes no student's actual financial world. This paper argues that learners respond best when the content they are learning is relevant to their surroundings, and proposes that financial literacy programming be localized (adapted to the learner's state, region, community, and intended pathway) rather than delivered through one-size-fits-all national curricula.

The moment is consequential. A majority of states now require personal finance instruction for high school graduation, and once current legislation is fully phased in, roughly three of every four public high school students will complete a dedicated personal finance course. Nearly all of that instruction, however, will arrive through nationally standardized materials that treat the financial landscapes of rural Texas, midtown Manhattan, suburban Ohio, and coastal Florida as interchangeable. They are not.

The case rests on three converging bodies of evidence. First, financial education works: the most rigorous experimental research demonstrates positive, economically meaningful effects on both knowledge and behavior. Second, relevance is the active ingredient: effects are largest and most durable when instruction is personalized and anchored to decisions learners actually face, a conclusion anticipated by four decades of learning science on situated cognition, anchored instruction, place-based education, and contextualized learning. Third, the financial facts of life differ by location in magnitudes large enough to change what a correct answer even is. A Texas student will never file a state income tax return but faces among the highest property tax bills in the nation; a New York City student pays a city income tax most curricula never mention; median home prices vary more than tenfold across metropolitan areas; and a quarter of bachelor's degree programs yield negative returns while identical majors differ by eighty thousand dollars in first-year earnings across institutions.

The paper closes with seven design principles for localized programming (localize parameters rather than competencies, anchor instruction to local decision calendars, protect teacher capacity, govern data quality, and evaluate rigorously) and contends that adaptive learning technology has removed the economic barrier that long made localization impractical. Educators, curriculum publishers, and policymakers should treat localization not as an enhancement to financial literacy programming, but as the unlock.

## 1. INTRODUCTION

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Personal finance is taught nationally but lived locally. The paycheck deductions a young worker sees, the cost of the apartment she rents, the price of the home she may one day buy, the value of the degree she is considering, the aid available to pay for it, and even the physical availability of a bank branch are all functions of where she lives. No other core subject in the American curriculum has this property to the same degree. Algebra is the same in Lubbock and Brooklyn; the path to homeownership is not.

Despite this, the dominant model of financial literacy instruction remains a one-size-fits-all national curriculum. The most widely adopted courses, textbooks, and online programs present a generic American financial landscape: a composite of federal income taxes plus an unspecified “state tax,” a median home price, a national average rent, a generalized treatment of student loans, and a stylized banking system that assumes a branch on every corner. For any individual student, significant portions of this composite are inaccurate. The Texas student studies state income tax brackets that will never apply to her, while the property tax system that will dominate her housing costs receives a paragraph. The Manhattan student learns about federal and state income taxes, but the city income tax that will take an additional 3 to 4 percent of every paycheck, a tax levied almost nowhere else in America, is typically absent entirely. The rural student practices a home-buying simulation calibrated to housing markets and lender ecosystems that look nothing like her county.

This is not a cosmetic flaw. A half century of research in educational psychology shows that perceived relevance is one of the most powerful levers for engagement, retention, and transfer. A decade of research in financial education specifically shows that instruction tied to decisions learners actually face produces larger and more durable behavioral effects than generic instruction delivered at an arbitrary moment. When the curriculum’s facts visibly fail to describe the student’s world, the curriculum forfeits relevance precisely where relevance matters most.

This paper proceeds in seven sections. Section 2 reviews the evidence that financial education works, but that its benefits decay without relevance and application. Sections 3 and 4 review the learning-science evidence, first the theoretical foundations and then the experimental record, that relevance, personal connection, and contextual fit drive engagement and achievement. Sections 5 and 6 document, domain by domain, how dramatically the underlying financial facts vary by geography: taxes, housing, higher education economics, financial aid, banking access, and the equity consequences of ignoring that variation. Section 7 engages the strongest objections, and Section 8 presents recommendations: seven design principles for localized financial literacy programming and the role of adaptive technology in delivering it at scale.

## **2. BACKGROUND: FINANCIAL EDUCATION WORKS, BUT GENERIC DELIVERY SQUANDERS THE EFFECT**

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### **The Effectiveness Evidence**

The question of whether financial education “works” was contested for years, but the most rigorous and comprehensive evidence now answers it affirmatively. Kaiser, Lusardi, Menkhoff, and Urban (2022), in a meta-analysis published in the *Journal of Financial Economics* covering 76 randomized controlled experiments across 33 countries with a combined sample of more than 160,000 individuals, find that financial education programs have positive causal effects on both financial knowledge and downstream financial behaviors: budgeting, saving, and credit management in particular. The treatment effects are economically meaningful, comparable in size to effective educational interventions in other domains, and at least three times as large as the average effect documented in earlier waves of research. The authors further conclude that these programs are cost-effective.

Quasi-experimental evidence from state policy variation points in the same direction. Brown, Collins, Schmeiser, and Urban (2014), using Federal Reserve credit panel data, examined young adults in Georgia, Idaho, and Texas after those states implemented personal financial education mandates in 2007, and found that students subject to the requirement had higher relative credit scores and lower relative delinquency rates than peers in matched control states. Subsequent work has found that state financial education mandates improve college financing choices, shifting students toward lower-cost federal aid and away from high-cost private borrowing and credit cards (Stoddard & Urban, 2020), and reduce reliance on payday lending and other alternative financial services (Harvey, 2020; Urban et al., 2020).

### **The Decay Problem**

The catch is durability. Fernandes, Lynch, and Netemeyer (2014), in a widely cited meta-analysis of 201 studies, found that financial education interventions explained only about 0.1 percent of variance in subsequent financial behavior, with effects that decay over time: even intensive, multi-hour interventions had negligible measurable effects on behavior 20 or more months after delivery. Their diagnosis was not that financial education is useless, but that knowledge delivered without an immediate, relevant opportunity to apply it is forgotten before it is needed. Their prescription has become one of the most influential ideas in the field: content knowledge “may be better conveyed via just-in-time financial education tied to a particular decision, enhancing perceived relevance and minimizing forgetting.”

The two meta-analytic traditions are reconcilable, and the reconciliation is the heart of this paper’s argument. Kaiser and Menkhoff (2017), in a World Bank meta-analysis, found that financial education delivered at a “teachable moment,” when the learner faces a

concrete, personally relevant decision, produces a measurably larger impact, on the order of an additional 0.05 to 0.07 standard deviations. Education that is personalized or delivered through active, experiential methods likewise produces larger behavioral effects than generic lecture-based delivery (Kaiser & Menkhoff, 2020; Amagir et al., 2018). In short: financial education works, and it works substantially better when the content is relevant to the learner's actual circumstances and decisions. Localization is the curricular expression of that finding. A student cannot experience a tax module as personally relevant if it describes a tax system that does not exist where she lives.

Localization can also be understood as the school-feasible form of just-in-time education. A classroom cannot deliver instruction at the moment of a mortgage signing fifteen years hence, but it can anchor instruction to decisions students will face within months of the lesson: the state's FAFSA priority deadline, the first paycheck from a first job and the specific deductions on it, the first apartment lease under the laws of the student's own state and city. Generic curricula cannot identify these proximate decisions because the decisions are defined by local rules and local calendars; localized curricula are built around them. In this sense, localization does not merely accommodate the just-in-time finding; it operationalizes it within the constraints of school-based delivery.

### **3. THEORETICAL FOUNDATIONS: CONTEXT IS PART OF THE CONTENT**

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The proposition that learners respond best to content connected to their own surroundings is not a novel claim awaiting evidence; it is one of the longest-standing and best-developed findings in the learning sciences, with theoretical roots stretching to Dewey and an empirical record spanning four distinct research traditions that developed largely independently of financial education. This section reviews that foundation; Section 4 turns to the experimental literatures that quantify the effect.

#### **Situated Cognition and Anchored Instruction**

The modern starting point is situated cognition. In one of the most cited papers in educational research, Brown, Collins, and Duguid (1989) argued that knowledge is not an abstract substance that can be cleanly separated from the settings in which it is learned and used. Knowledge is "situated," a product of the activity, context, and culture in which it develops, and teaching practices that abstract conceptual knowledge from authentic contexts of use inevitably limit what students can do with it. Lave and Wenger (1991) extended the argument, showing that robust learning occurs through participation in authentic communities of practice rather than through decontextualized transmission. The implication for personal finance is direct: a student who learns "taxation" as an abstraction, detached from the specific system that will actually tax her, has learned something importantly different, and less usable, than a student who learns taxation through the system she inhabits.

The situated-cognition framework was put to instructional work almost immediately. The Cognition and Technology Group at Vanderbilt (1990) developed “anchored instruction,” embedding mathematics and problem-solving instruction in rich, authentic problem contexts (the Jasper Woodbury series), explicitly to recreate the advantages of in-context apprenticeship within formal schooling. The approach demonstrated gains in complex problem solving and became one of the foundational models of authentic, context-anchored learning design (CTGV, 1990, 1992). Localized financial curricula are anchored instruction by another name: the “anchor” is the student’s own county tax bill, local rental market, or state aid deadline rather than a videodisc adventure.

### **Place-Based Education, Contextualized Instruction, and Funds of Knowledge**

Place itself, the student’s physical and civic community, became the organizing context in the place-based education movement (Smith, 2002; Sobel, 2004; Gruenewald, 2003), and the empirical record here is substantial. The landmark study is Lieberman and Hoody (1998), a nationwide examination of 40 schools using the local environment as an integrating context (EIC) for learning across subjects. Students in EIC programs showed better performance on standardized measures of achievement in reading, writing, mathematics, science, and social studies, along with reduced discipline problems and increased engagement and enthusiasm for learning, gains observed in urban and suburban schools alike. Subsequent evaluations by the Place-Based Education Evaluation Collaborative across dozens of schools in New England found consistent gains in student engagement, achievement, and community attachment (Powers, 2004; PEEC, 2010). Notably, the mechanism researchers identify echoes the financial education literature precisely: students who cannot see the relevance of classroom curricula disengage, and grounding instruction in the local and the real restores the connection (Lieberman & Hoody, 1998).

Two further traditions complete the foundation. Research on contextualized instruction, the teaching of foundational skills through content that is authentic and meaningful to the learner, finds, across a review of 27 studies in college settings, that contextualization accelerates the progress of academically underprepared students, an effect grounded in the twin mechanisms of skill transfer and motivation (Perin, 2011). And the funds-of-knowledge tradition (Moll, Amanti, Neff, & González, 1992) demonstrated that treating the knowledge embedded in students’ own households and communities as an instructional resource, rather than as a blank space the curriculum writes over, strengthens engagement, instruction, and family-school connection. A financial curriculum localized to a community does exactly this. The student whose family runs a cash business, manages a remittance relationship, ranches leased land, or navigates rent stabilization arrives with household financial knowledge a generic curriculum ignores and a localized one can build upon.

Four traditions, four decades, one conclusion: context is not packaging around content; it is part of the content, and instruction that honors the learner's actual context produces engagement, achievement, and transfer that decontextualized instruction does not. What distinguishes personal finance from the subjects where these literatures developed is how tractable the relevant context is. "Place" in place-based science education must be painstakingly translated into curriculum school by school; "place" in financial education is substantially captured by structured public data (tax regimes, housing statistics, aid programs, institutional outcomes), which is what makes financial education uniquely suited to systematic localization at scale.

## **4. EXPERIMENTAL EVIDENCE: RELEVANCE RAISES ENGAGEMENT AND ACHIEVEMENT**

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### **Utility-Value Interventions**

The most direct experimental evidence that perceived relevance causes better learning comes from the utility-value intervention literature in educational psychology. In a series of randomized experiments, Hulleman, Harackiewicz, and colleagues asked students to write briefly about how course material was relevant to their own lives; control students simply summarized the material. The relevance manipulation increased both situational interest and performance, with the largest gains among students with low expectations of success or a history of poor performance, precisely the students most at risk of disengaging (Hulleman & Harackiewicz, 2009; Hulleman, Godes, Hendricks, & Harackiewicz, 2010). These effects have been replicated in high school science, college biology, and other gateway courses. Reviews of the program of research emphasize that the connections students draw must be specific and context-relevant to work: vague gestures at usefulness do not move outcomes, but concrete links between course content and the student's own life do (Harackiewicz, Canning, Tibbetts, Priniski, & Hyde, 2016; Hulleman & Harackiewicz, 2021).

The implication for financial education is immediate. A curriculum that teaches "property taxes exist" offers a weak hook. A curriculum that shows an Austin student that the median Travis County homeowner's annual property tax bill exceeds what a comparable Tennessee homeowner pays, and that explains the reason (Texas funds schools through property taxes in lieu of an income tax), hands the student a specific, verifiable fact about her own world. Specificity of connection is not decoration; in the utility-value research, it is the mechanism.

### **Culturally and Contextually Responsive Teaching**

A parallel body of research on culturally responsive and culturally relevant pedagogy reaches the same conclusion from a different direction. Gay (2010) defines culturally responsive teaching as using the cultural knowledge, prior experiences, and frames of reference of students to make learning encounters more relevant and effective. A

substantial evidence base, including the Aronson and Laughter (2016) synthesis and the Dee and Penner (2017) causal study of an ethnic studies curriculum, links such instruction to increased engagement, attendance, and achievement, with particularly strong effects for students whose backgrounds are least reflected in standard materials. Systematic reviews find that knowledge retention improves when teachers incorporate examples, cases, and materials that connect to students' own contexts (Caingcoy, 2023; Aronson & Laughter, 2016).

Place is part of context. The lived financial environment of a student is as much a frame of reference as language or culture: whether her family rents or owns, whether the local economy runs on oil, agriculture, tourism, or finance, whether college means a flagship campus three hours away or a community college down the street, whether “the bank” is a branch lobby or an app because the nearest physical branch is thirty miles away. Financial curricula that ignore this environment are, in the precise sense used by this literature, unresponsive.

### **Adaptive and Personalized Delivery Compounds the Effect**

Finally, the technology now exists to deliver contextually adapted instruction at scale, and the evidence on that technology is strong. Kulik and Fletcher (2016), reviewing 50 controlled evaluations of intelligent tutoring systems, found that students using such systems outperformed conventionally taught peers in 92 percent of studies, with a median effect size of 0.66, a moderate-to-strong result by any educational benchmark. Ma, Adesope, Nesbit, and Liu (2014) found significant positive effects across nearly all subject domains and education levels, and a 2024 meta-analysis of AI-enabled adaptive learning systems found medium-to-large positive effects on cognitive learning outcomes relative to non-adaptive instruction (Wang et al., 2024). Notably, the financial education literature itself flags personalization as an effect-size moderator: programs that tailor content to the learner produce larger behavioral changes (Kaiser & Menkhoff, 2017; Carpena et al., 2019).

The convergence across these literatures (situated cognition, anchored instruction, place-based education, contextualized instruction, funds of knowledge, utility-value, culturally responsive pedagogy, and adaptive learning) is striking. Each, independently and across four decades, identifies the match between content and the learner's own context as a primary driver of outcomes. Financial education is the subject where that match is most achievable, because the relevant context is largely objective and knowable: it is the student's ZIP code, state tax regime, local housing market, regional labor market, and available aid programs. The two sections that follow document just how much those facts vary.

## **5. THE LOCALIZATION GAP, PART I: TAXES AND HOUSING**

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The case for localization does not rest on pedagogy alone. It rests on the magnitude of the underlying variation. If financial facts differed only modestly from place to place, a national curriculum with occasional footnotes would suffice. They do not differ modestly. In every major domain of personal finance, geographic variation is large enough to change what students should be taught, which calculations they should practice, and in some cases what the correct answer to a basic question even is.

### **Taxes: Nine Income Tax Realities, an Eightfold Property Tax Spread, and City Taxes Most Curricula Never Mention**

Nine states (Alaska, Florida, Nevada, New Hampshire, South Dakota, Tennessee, Texas, Washington, and Wyoming) levy no tax on wage income, while top marginal state rates elsewhere reach 13.3 percent in California, 11 percent in Hawaii, and 10.9 percent in New York (TurboTax/Intuit, 2026). A standard curriculum module on “filing your state income taxes” is therefore teaching a transaction that roughly one in five American students will never perform, while omitting the taxes those students actually will pay.

Texas is the clearest illustration. Texas has no individual income tax, but it carries a roughly 1.4 to 1.6 percent effective property tax rate on owner-occupied housing, among the half-dozen highest in the nation, and raises 40.7 percent of all state and local tax revenue from property taxes, its single largest revenue source (Tax Foundation, 2026). A homeowner with a \$400,000 house in Texas pays on the order of \$6,400 per year in property taxes, more than double the typical national dollar amount, and effective bills of \$8,000 to \$15,000 are common in the Austin and Dallas metros (CountryTaxCalc, 2026; Levyio, 2026). Within Texas, combined county rates themselves vary by nearly a full percentage point: roughly \$2,450 per year on a \$350,000 home depending on county (Ballard, 2026). For a Texas student, the financially decisive tax education is property tax mechanics: appraisals, school district levies, homestead exemptions, and protest procedures. Most national curricula allocate this topic a fraction of the attention given to state income tax brackets that do not exist in Texas.

New York City is the mirror image. NYC residents pay a city income tax of 3.078 to 3.876 percent on top of state rates of 4 to 10.9 percent, producing combined state-and-city income tax rates from roughly 7.1 to 14.8 percent, one of the heaviest income tax burdens in the country, plus an 8.875 percent combined sales tax (PropertyClub, 2024; NerdWallet, 2026; Indinero, 2026). The city tax applies to residents of all five boroughs even if they work elsewhere, has no standard deduction, and is a major reason NYC take-home pay differs from that of peers in Los Angeles, Houston, or Phoenix, none of which levy a city income tax (NYC Paycheck Calculator, 2026). Meanwhile NYC’s effective property tax rate, at roughly 0.88 percent, is little more than half the Texas rate (NoTaxOn, 2025). A first-paycheck lesson that omits the city tax line will leave a Bronx student unable to reconcile her own pay stub with what school taught her, the precise opposite of the relevance the learning science demands. Local income taxes are not a New York curiosity: Philadelphia, Detroit, Columbus, Cleveland, Kansas City, Yonkers, and

hundreds of jurisdictions in Ohio and Pennsylvania levy them as well (CountryTaxCalc, 2026).

Even the structure of property tax, a topic that does generalize, varies enough to invert advice. Effective rates range from 2.23 percent in New Jersey to 0.28 percent in Hawaii, an eightfold difference. California's Proposition 13 freezes assessed values for long-term owners, so new buyers face very different effective rates than neighbors who bought decades ago (CountryTaxCalc, 2026; Tax Foundation, 2026). "How much will owning this home cost per year?" has no national answer.

### **Housing: A Tenfold Spread in Prices and Fundamentally Different Paths to Ownership**

The national median single-family existing-home price was \$404,300 in the first quarter of 2026 (NAR, 2026). That average conceals a spread so wide that it renders generic home-buying modules nearly meaningless at the extremes: the median home in the San Jose metro sold for roughly \$2.03 million in early 2026, while homes in metros such as Toledo, Akron, and Dayton, Ohio average under \$200,000 (HSH, 2026; SmartAsset, 2024). The National Association of Home Builders' 2026 priced-out analysis finds that in 39 states and the District of Columbia, more than 65 percent of households cannot afford the median-priced new home in their own state (83.4 percent in New Hampshire, where the median new home runs \$677,982), while in affordable metros such as Rome, Georgia, where the median new home costs \$107,567, more than three-quarters of households can afford one (NAHB, 2026).

These are not differences of degree but of kind. In rural Texas or small-town Georgia, homeownership in one's twenties on a moderate income is a realistic near-term goal, and the curriculum that matters covers FHA and USDA rural loans, property tax escrow, well and septic inspections, and homeowner's insurance in hail or wildfire country. In New York City, where roughly two-thirds of households rent, the financially urgent curriculum is tenant economics: leases, security deposit law, rent stabilization, broker fees, co-op versus condo structures, and the rent-versus-buy calculation in a market where the median home is approaching twice the national figure and most young households will rent for a decade or more. Teaching both students the same 30-minute "buying your first home" module mis-serves them in opposite directions.

## **6. THE LOCALIZATION GAP, PART II: HIGHER EDUCATION, FINANCIAL AID, AND ACCESS**

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The gap extends beyond taxes and housing into the decisions that define early adulthood: what to study, how to pay for it, and where to bank, and into the outcomes financial education ultimately seeks to move.

## **Higher Education: Returns Vary by Program and Place, and the Differences Are Life-Changing**

Standard curricula treat student debt generically: borrow conservatively, understand interest, compare loan types. The actual decision students face, whether a specific credential at a specific institution is worth a specific price, is one the data now allow us to answer, and the answers vary enormously. FREOPP's analysis of more than 53,000 degree and certificate programs finds that the median bachelor's degree yields a lifetime return on investment of about \$160,000, but roughly a quarter of bachelor's programs produce a negative return, leaving graduates financially worse off than if they had not enrolled, while engineering, computer science, nursing, and economics programs routinely return \$500,000 or more (FREOPP, 2024; Cooper, 2021). Around a third of federal Pell Grant and student loan dollars flow to programs with no positive return (FREOPP, 2024). Georgetown's Center on Education and the Workforce, which has ranked the return on investment of 4,600 institutions, finds that first-year earnings for the same degree in the same major can differ by \$80,000 depending on the institution, and that certificate and community college credentials often out-earn bachelor's degrees in the short run (Georgetown CEW, 2021, 2025). Field of study, institution, and the regional labor market jointly determine the outcome, none of which a generic "is college worth it?" lesson can address.

A localized curriculum can. It can put in front of a student the actual net price, completion rate, and earnings outcomes of the institutions and programs students from her school most commonly attend, and teach the return-on-investment calculation on those numbers. That is the difference between teaching about student debt and equipping a student to make her own largest financial decision to date.

## **Financial Aid: A Patchwork of State Programs, Deadlines, and Rules**

Financial aid is federal in architecture but state and institutional in practice. California's Cal Grant, New York's Excelsior Scholarship and Tuition Assistance Program, and the TEXAS Grant each carry distinct eligibility rules, income thresholds, deadlines, and application instruments. California maintains a separate application (the CADAA) for undocumented students who cannot file the FAFSA, and Texas maintains the TASFA for the same population (PPIC, 2025; THECB, 2025). Deadlines alone can decide outcomes: Texas recommends filing by January 15 for priority consideration for state grants, California's deadline for UC and CSU applicants is March 2, and several state programs are first-come, first-served: the TEXAS Grant has historically covered only about 84 percent of newly eligible students and Washington's need grant about 70 percent (New America, 2019; College Ready Parent, 2026).

The stakes of getting this wrong are quantified. The Texas high school class of 2024 left an estimated \$550 million in Pell Grant money unclaimed simply by not filing the FAFSA (Texas Tribune, 2026). States that localized the intervention have seen results: Texas

made FAFSA or TASFA completion a graduation requirement in 2021, and completion has climbed to record levels near 60 percent, among the nation's highest (Texas Tribune, 2026). FAFSA completion is itself one of the strongest predictors of college enrollment, and research finds every additional \$1,000 in grant aid improves persistence and completion by roughly two percentage points (Nguyen, Kramer, & Evans, 2019, cited in PPIC, 2025). A national curriculum can teach what the FAFSA is; only a localized one can teach a junior in Houston that her deadline is January 15, what the TEXAS Grant will and will not cover, and what TASFA is for.

### **Financial Access: The Banking System Itself Looks Different by Geography**

Even the institutional landscape students must navigate varies. The Federal Reserve has identified more than 2,100 existing and potential “banking deserts” (census tracts with no bank branch within a defined radius), of which more than 1,500 are rural; rural tracts are roughly ten times more likely than urban tracts to sit in a banking desert, and about 12.3 million Americans currently live in one (CFPB, 2022; Fed Communities, 2025). Rural households visit physical branches at nearly twice the rate of urban households, rely disproportionately on community banks, and in many areas lack the broadband that would make online banking a full substitute (CFPB, 2022; U.S. News, 2026). Urban students in underbanked neighborhoods face a different access problem: a dense ecosystem of check cashers, payday lenders, and fee-heavy fringe products. “How to choose and use a bank account” is a different lesson in each of these environments.

### **The Outcome Gap Is Geographic, Too**

Financial literacy outcomes themselves vary sharply by place. FINRA's National Financial Capability Study, the sixth wave of which surveyed more than 25,500 adults across all 50 states, finds wide state-by-state differences in financial knowledge: in the top-ranking states more than a third of adults answered at least five of seven knowledge questions correctly, versus fewer than 20 percent in the lowest-ranking states (FINRA Foundation, 2025). Policy is equally uneven, ranging from rigorous standalone semester courses to brief units embedded in other classes (PSCA, 2025). Importantly, mandate research finds meaningful heterogeneity in outcomes even between states that adopted superficially similar policies in the same years: implementation and content quality, not the existence of a mandate, drive results (Urban, Schmeiser, Collins, & Brown, 2020). The delivery infrastructure for financial education is already fragmented along state lines; what is missing is content engineered to take advantage of that fact rather than ignore it.

### **The Equity Dimension**

The localization gap does not fall evenly. The students most poorly served by a generic national composite are those whose financial environments deviate most from it, disproportionately students in low-income rural and urban communities. The rural student in a banking desert is taught a banking unit that assumes a branch nearby and broadband at home. The urban student surrounded by check cashers and payday

storefronts receives no instruction on the specific products competing for her first paycheck, even though mandate research shows financial education measurably reduces reliance on exactly those services (Harvey, 2020). The first-generation college aspirant, for whom unclaimed aid and missed deadlines carry the highest cost, gets a generic FAFSA overview instead of her state's actual programs and dates. Students in well-resourced households can compensate for generic curricula through family knowledge; students without that scaffolding cannot. Localized programming is therefore not only a pedagogical improvement but an equity intervention: it concentrates its largest gains precisely where generic content fails most completely.

## **7. DISCUSSION: ANTICIPATED OBJECTIONS AND LIMITATIONS**

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Three serious objections deserve direct engagement, because each shapes how localized programming should be designed and evaluated.

The first is the regulatory critique, articulated most forcefully by Willis (2011): financial education is a poor substitute for consumer protection, because financial products evolve faster than curricula, industry marketing budgets dwarf educational budgets, and effect sizes, however positive, are modest relative to the complexity consumers face. This critique deserves two responses. As a matter of policy, education and regulation are complements, not substitutes; nothing in this paper argues otherwise, and the strongest financial education programs teach students how consumer protections work and when to invoke them. As a matter of design, however, the Willis critique is partly an indictment of exactly the static, generic model this paper argues against. Curricula that cannot keep pace with a changing financial landscape are a fixed feature of print publishing, not of financial education as such. Dynamically maintained, locally parameterized content is the version of financial education most capable of answering the obsolescence charge, because its facts refresh on the same cycles as the rules and prices it describes.

The second is the behavioral critique associated with Thaler and the choice-architecture tradition: knowledge alone rarely changes behavior, and adding a high school class will not by itself produce sophisticated consumers. The decay evidence reviewed in Section 2 substantiates the concern, and it also points to the response. The behavioral literature's own prescriptions are timeliness, simplicity, and decision-adjacency, and these are precisely what localization supplies within a school setting: instruction anchored to the proximate, locally defined decisions students actually face, in the months they face them, with the specific numbers those decisions involve. Localized programming should accordingly be judged, and built, on behavioral outcomes, not seat time or content volume.

The third is the inferential limitation, and intellectual honesty requires stating it plainly: no randomized controlled trial has yet directly compared a localized financial curriculum

against an otherwise identical generic one. The argument of this paper is a convergence argument. It rests on (a) causal evidence that financial education improves knowledge and behavior (Kaiser et al., 2022; Brown et al., 2014); (b) causal and meta-analytic evidence that relevance, personalization, and teachable-moment timing significantly moderate those effects (Kaiser & Menkhoff, 2017; Fernandes et al., 2014); (c) experimental and field evidence from outside finance (spanning utility-value experiments, the 40-school place-based education study, contextualized instruction research, and culturally responsive pedagogy) that grounding content in the learner's own context raises engagement and achievement (Hulleman & Harackiewicz, 2009; Lieberman & Hoody, 1998; Perin, 2011; Dee & Penner, 2017); and (d) documented geographic variation in financial facts large enough to make generic content inaccurate for many learners. The convergence is strong, but the direct comparison remains untested, which is why Section 8 treats rigorous evaluation, on standardized instruments, as an obligation of localized programming rather than an option. The appropriate posture is that of a well-grounded hypothesis carrying an evaluation plan, not a settled result.

A related scholarly caution comes from within the learning sciences themselves. Anderson, Reder, and Simon (1996), responding to the strongest claims of the situated-learning movement, marshaled evidence that abstract instruction can and does transfer, and warned against the overcorrection of insisting that all learning be concrete and context-bound; their reading of the evidence favored combining abstract principles with concrete instantiations. The recommendations in Section 8 are deliberately consistent with this position rather than in tension with it. The first of them, localize parameters rather than competencies, is precisely the Anderson-Reder-Simon synthesis applied to personal finance: the curriculum teaches the general, transferable principle (how marginal tax rates work, how to compute total cost of ownership, how to evaluate an educational investment) and instantiates it in the learner's own local facts. The claim is not that abstraction should be banished from financial education; it is that the concrete instantiations through which abstractions are learned should describe the student's actual world rather than a fictional national composite.

## **8. RECOMMENDATIONS: DESIGN PRINCIPLES FOR LOCALIZED FINANCIAL LITERACY PROGRAMMING**

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The evidence reviewed in Sections 2 through 6, read against the objections engaged in Section 7, supports seven design principles for the next generation of financial literacy programming.

First, localize parameters, not competencies. Core financial concepts (compound interest, budgeting, credit, risk) are universal, but the parameters students plug into them are local, and localization should change the facts, examples, exercises, and decision calendars rather than the underlying skills. The competency framework should remain aligned to the national standards that states and districts use to evaluate curricula, in

particular the CEE/Jump\$tart National Standards for Personal Financial Education (CEE & Jump\$tart Coalition, 2021), so that a localized course in El Paso and a localized course in Brooklyn certify the same competencies through different local material. This preserves portability for mobile students, comparability for evaluators, and adoptability for state boards.

Second, localize the facts themselves. Tax modules should reflect the student's actual state and municipal regime: property-tax-centric instruction in Texas, Tennessee, and Florida; city-tax-inclusive paycheck instruction in New York City, Philadelphia, and Ohio municipalities. Housing modules should be calibrated to local price levels, tenure norms, and loan programs. Higher education modules should use program-level return data and net prices for the institutions students in that community actually attend, and aid modules should teach the student's own state programs, applications, and deadlines.

Third, localize the moments. The just-in-time literature shows that timing instruction to real decisions multiplies its durability (Fernandes et al., 2014; Kaiser & Menkhoff, 2017). Local context defines those moments: FAFSA priority deadlines, lease-signing seasons, first-job paycheck reconciliation, state-specific insurance requirements. Curricula sequenced against the local decision calendar convert generic lessons into teachable moments.

Fourth, make relevance explicit and student-generated. Utility-value research shows that prompting students to articulate, in specific terms, how content connects to their own lives raises interest and achievement, especially for struggling students (Hulleman & Harackiewicz, 2009; Harackiewicz et al., 2016). Exercises built on the student's own county tax rate, own metro rent data, and own institutional return figures give students concrete material with which to make those connections.

Fifth, use adaptive delivery to make localization scalable, and to lift the burden off teachers rather than add to it. The historical objection to localized curricula has been economic: no publisher can hand-author fifty state editions, let alone thousands of community editions, and no teacher can be expected to research municipal tax codes. The constraint is decisive in practice, because the typical personal finance course is taught by an educator new to the subject; any localization model that asks teachers to source local data themselves will fail on contact with the classroom. Adaptive learning technology dissolves the constraint by delivering locally parameterized content pre-built. Systems that condition content on learner context have demonstrated medium-to-large learning gains across domains (Kulik & Fletcher, 2016; Ma et al., 2014; Wang et al., 2024), and the data needed to localize financial content (tax rates, housing statistics, program-level college outcomes, state aid rules, branch locations) is public, structured, and continuously updated by federal and state agencies. The same infrastructure solves a second chronic problem of financial education: staleness. Tax brackets, FAFSA rules, interest rates, and

housing markets change annually or faster; static textbooks cannot keep pace, but dynamically maintained content can.

Sixth, govern the data and the generation. Dynamically localized content carries an obligation that static textbooks do not: financial misinformation tailored to a student's own ZIP code is more damaging than generic content, because it arrives with the credibility of specificity. Localized programming therefore requires explicit guardrails: authoritative source whitelists (state revenue departments, the IRS, the Department of Education's College Scorecard, Census and Federal Reserve data), scheduled refresh cycles tied to known update calendars, human expert review of generated material, and ongoing accuracy auditing. These safeguards should be treated as core architecture, not compliance afterthought.

Seventh, measure what matters, with instruments the field can compare. Because no randomized study has yet directly compared localized against generic financial curricula, evaluation is not an accessory to localized programming but its scientific obligation. Programs should pair the standardized knowledge measures that anchor the research literature, the Lusardi-Mitchell "Big 3" and "Big 5" items used in the FINRA National Financial Capability Study (Lusardi & Mitchell, 2014), with locally meaningful behavioral outcomes: FAFSA and TASFA completion, state aid uptake, banking enrollment, and the credit outcomes in which state-mandate research has already demonstrated effects (Brown et al., 2014; Stoddard & Urban, 2020). Designed this way, localized programming does not merely apply the relevance literature; it extends it, generating the comparative evidence the field currently lacks.

## **9. CONCLUSION**

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American financial education stands at an inflection point. The policy momentum is real: a majority of states now guarantee personal finance instruction, and within five years roughly three in four public high school students will take a dedicated course. The scientific verdict is also in: financial education improves knowledge and behavior, and it does so most powerfully when content is relevant, specific, personalized, and timed to real decisions. What has not yet caught up is the content itself. The curricula filling these newly mandated classrooms remain overwhelmingly generic: national composites that describe no student's actual financial world, that teach Texans an income tax they will never pay while underteaching the property tax that will shape their housing costs, that hand Manhattan teenagers a paycheck lesson missing an entire layer of taxation, that run every student through the same home-buying simulation across a housing landscape with a tenfold price spread, and that discuss "student debt" in the abstract while a quarter of degree programs quietly deliver negative returns.

The research assembled in this paper indicates that closing this localization gap is not an enhancement to financial literacy programming; it is the unlock. Relevance is the active

ingredient in financial education's effectiveness, geography is the largest untapped source of relevance in this subject, and adaptive technology has removed the economic barrier that made localization impractical. Learners respond best when what they are taught describes the world they actually live in. For educators, curriculum publishers, and policymakers, the directive that follows is equally simple: build, adopt, and rigorously evaluate financial literacy programming that meets students where they actually live, because the students who stand to gain the most are the ones the generic curriculum serves least.

## REFERENCES

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- Amagir, A., Groot, W., Maassen van den Brink, H., & Wilschut, A. (2018). A review of financial-literacy education programs for children and adolescents. *Citizenship, Social and Economics Education*, 17(1), 56–80.
- Anderson, J. R., Reder, L. M., & Simon, H. A. (1996). Situated learning and education. *Educational Researcher*, 25(4), 5–11.
- Aronson, B., & Laughter, J. (2016). The theory and practice of culturally relevant education: A synthesis of research across content areas. *Review of Educational Research*, 86(1), 163–206.
- Ballard Property Tax Protest. (2026). Texas property tax rates by county: 2025 comparison. <https://www.ballardpropertytaxprotest.com/post/texas-property-tax-rates-by-county>
- Brown, A., Collins, J. M., Schmeiser, M. D., & Urban, C. (2014). State mandated financial education and the credit behavior of young adults (FEDS Working Paper 2014-68). Board of Governors of the Federal Reserve System. <https://www.federalreserve.gov/pubs/feds/2014/201468/201468abs.html>
- Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18(1), 32–42.
- Caingcoy, M. E. (2023). Culturally responsive pedagogy: A systematic overview. *Diversitas Journal*, 8(4). <https://www.researchgate.net/publication/374586585>
- Carpena, F., Cole, S., Shapiro, J., & Zia, B. (2019). The ABCs of financial education: Experimental evidence on attitudes, behavior, and cognitive biases. *Management Science*, 65(1), 346–369.
- Cognition and Technology Group at Vanderbilt. (1990). Anchored instruction and its relationship to situated cognition. *Educational Researcher*, 19(6), 2–10.
- Cognition and Technology Group at Vanderbilt. (1992). The Jasper experiment: An exploration of issues in learning and instructional design. *Educational Technology Research and Development*, 40(1), 65–80.
- Consumer Financial Protection Bureau. (2022). Data spotlight: Challenges in rural banking access. [https://files.consumerfinance.gov/f/documents/cfpb\\_data-spotlight\\_challenges-in-rural-banking\\_2022-04.pdf](https://files.consumerfinance.gov/f/documents/cfpb_data-spotlight_challenges-in-rural-banking_2022-04.pdf)
- Cooper, P. (2021/2024). Does college pay off? A comprehensive return on investment analysis. Foundation for Research on Equal Opportunity (FREOPP). <https://freopp.org/whitepapers/does-college-pay-off-a-comprehensive-return-on-investment-analysis/>
- Council for Economic Education & Jump\$tart Coalition. (2021). National standards for personal financial education. <https://www.councilforeconed.org/national-standards-for-personal-financial-education/>

- Council for Economic Education. (2026). Survey of the states: Economic and personal finance education in our nation's schools. <https://www.councilforeconed.org/policy-advocacy/survey-of-the-states/>
- CountryTaxCalc. (2026). Property tax by state 2026; New York City tax calculator 2026. <https://www.countrytaxcalc.com/tax-guides/usa/>
- Dee, T. S., & Penner, E. K. (2017). The causal effects of cultural relevance: Evidence from an ethnic studies curriculum. *American Educational Research Journal*, 54(1), 127–166.
- Fed Communities / Federal Reserve Banks of Philadelphia and Cleveland. (2025). Banking deserts dashboard. <https://fedcommunities.org/data/banking-deserts-dashboard/>
- Fernandes, D., Lynch, J. G., & Netemeyer, R. G. (2014). Financial literacy, financial education, and downstream financial behaviors. *Management Science*, 60(8), 1861–1883.
- FINRA Investor Education Foundation. (2025). National Financial Capability Study, sixth wave: State-by-state financial knowledge findings. <https://www.finra.org/media-center/newsreleases/2025/finra-foundation-releases-state-state-financial-knowledge-findings>
- Gay, G. (2010). *Culturally responsive teaching: Theory, research, and practice* (2nd ed.). Teachers College Press.
- Georgetown University Center on Education and the Workforce. (2021). Buyer beware: First-year earnings and debt for 37,000 college majors at 4,400 institutions. <https://cew.georgetown.edu/>
- Georgetown University Center on Education and the Workforce. (2025). Ranking 4,600 colleges by ROI. <https://cew.georgetown.edu/cew-reports/roi2025/>
- Gruenewald, D. A. (2003). The best of both worlds: A critical pedagogy of place. *Educational Researcher*, 32(4), 3–12.
- Harackiewicz, J. M., Canning, E. A., Tibbetts, Y., Priniski, S. J., & Hyde, J. S. (2016). Closing achievement gaps with a utility-value intervention. *Journal of Personality and Social Psychology*, 111(5), 745–765.
- Harvey, M. (2020). Impact of financial education mandates on younger consumers' use of alternative financial services. *Journal of Consumer Affairs*, 53(3), 731–769.
- HSH.com. (2026). The salary you must earn to buy a home in the 50 largest metros (Q1 2026). <https://www.hsh.com/finance/mortgage/salary-home-buying-25-cities.html>
- Hulleman, C. S., & Harackiewicz, J. M. (2009). Promoting interest and performance in high school science classes. *Science*, 326(5958), 1410–1412.
- Hulleman, C. S., & Harackiewicz, J. M. (2021). The utility-value intervention. In G. M. Walton & A. J. Crum (Eds.), *Handbook of Wise Interventions*. Guilford Press.

- Hulleman, C. S., Godes, O., Hendricks, B. L., & Harackiewicz, J. M. (2010). Enhancing interest and performance with a utility value intervention. *Journal of Educational Psychology*, 102(4), 880–895.
- Indinero. (2026). New York tax rates. <https://www.indinero.com/us-tax-rates-by-state/new-york-tax-rates/>
- Kaiser, T., & Menkhoff, L. (2017). Does financial education impact financial literacy and financial behavior, and if so, when? *World Bank Economic Review*, 31(3), 611–630.
- Kaiser, T., & Menkhoff, L. (2020). Financial education in schools: A meta-analysis of experimental studies. *Economics of Education Review*, 78, 101930.
- Kaiser, T., Lusardi, A., Menkhoff, L., & Urban, C. (2022). Financial education affects financial knowledge and downstream behaviors. *Journal of Financial Economics*, 145(2), 255–272. (NBER Working Paper 27057.) <https://www.nber.org/papers/w27057>
- Kulik, J. A., & Fletcher, J. D. (2016). Effectiveness of intelligent tutoring systems: A meta-analytic review. *Review of Educational Research*, 86(1), 42–78.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge University Press.
- Levyio. (2026). States with no income tax: The complete list for 2026. <https://levyio.com/blog/no-income-tax-states/>
- Lieberman, G. A., & Hoody, L. L. (1998). Closing the achievement gap: Using the environment as an integrating context for learning: Results of a nationwide study. *State Education and Environment Roundtable*. <https://eric.ed.gov/?id=ED428943>
- Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5–44.
- Ma, W., Adesope, O. O., Nesbit, J. C., & Liu, Q. (2014). Intelligent tutoring systems and learning outcomes: A meta-analysis. *Journal of Educational Psychology*, 106(4), 901–918.
- Moll, L. C., Amanti, C., Neff, D., & González, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory Into Practice*, 31(2), 132–141.
- National Association of Home Builders. (2026). How housing affordability conditions vary across states and metro areas (2026 priced-out estimates). <https://eyeonhousing.org/2026/02/how-housing-affordability-conditions-vary-across-states-and-metro-areas/>
- National Association of REALTORS. (2026, May). Home prices increased in 71% of metro areas in first quarter of 2026. <https://www.nar.realtor/research-and-statistics/housing-statistics/metropolitan-median-area-prices-and-affordability>
- National Association of State Boards of Education (NASBE). (2025, December). States accelerate financial literacy education with most requiring it for graduation.

- <https://www.nasbe.org/states-accelerate-financial-literacy-education-with-most-requiring-it-for-graduation/>
- NerdWallet. (2026). New York state income tax: Rates and who pays. <https://www.nerdwallet.com/taxes/learn/new-york-state-tax>
- New America. (2019). Degrees denied: Adults left out of state financial aid programs. <https://www.newamerica.org/insights/adults-state-financial-aid/>
- Next Gen Personal Finance (NGPF). (2026). How many states require students to take a personal finance course for high school graduation? <https://www.ngpf.org/blog/advocacy/how-many-states-require-students-to-take-a-personal-finance-course-for-high-school-graduation/>
- NoTaxOn.com. (2025). New York City, NY tax guide. <https://notaxon.com/cities/new-york-ny/>
- NYC Paycheck Calculator. (2026). NYC local income tax explained 2026. <https://nycpaycheckcalculator.com/guides/nyc-local-income-tax/>
- Perin, D. (2011). Facilitating student learning through contextualization: A review of evidence. *Community College Review*, 39(3), 268–295.
- Place-Based Education Evaluation Collaborative (PEEC). (2010). The benefits of place-based education: A report from the Place-based Education Evaluation Collaborative (2nd ed.).
- Plan Sponsor Council of America (PSCA). (2025). How financial literacy education is treated in the states. <https://www.psc.org/news/psca-news/2025/6/how-financial-literacy-education-is-treated-in-the-states/>
- Powers, A. L. (2004). An evaluation of four place-based education programs. *Journal of Environmental Education*, 35(4), 17–32.
- PropertyClub. (2024). NYC income tax rate guide. <https://propertyclub.nyc/article/new-york-city-income-tax>
- Public Policy Institute of California (PPIC). (2025). Implementing California’s universal financial aid application policy. <https://www.ppic.org/publication/implementing-californias-universal-financial-aid-application-policy/>
- SmartAsset. (2024–2025). America’s most expensive housing markets. <https://smartasset.com/>
- Smith, G. A. (2002). Place-based education: Learning to be where we are. *Phi Delta Kappan*, 83(8), 584–594.
- Sobel, D. (2004). Place-based education: Connecting classrooms and communities. Orion Society.
- Stoddard, C., & Urban, C. (2020). The effects of state-mandated financial education on college financing behaviors. *Journal of Money, Credit and Banking*, 52(4), 747–776.
- Tax Foundation. (2026). Texas tax rates and rankings; Property taxes by state and county. <https://taxfoundation.org/location/texas/>

- Texas Higher Education Coordinating Board (THECB). (2025). Student financial aid programs. <https://www.highered.texas.gov/student-financial-aid-programs/>
- Texas Tribune. (2026, April 8). Texas on pace to hit a record high for FAFSA submissions. <https://www.texastribune.org/2026/04/08/texas-fafsa-college-aid-high-school-students/>
- Thaler, R. H. (2013, October 5). Financial literacy, beyond the classroom. *The New York Times*.
- TurboTax / Intuit. (2026). States with the lowest and highest income taxes. <https://turbotax.intuit.com/tax-tips/fun-facts/states-with-the-highest-and-lowest-taxes/L6HPAVqSF>
- U.S. News & World Report. (2026). Banking deserts are becoming more common. <https://www.usnews.com/banking/articles/banking-deserts-are-becoming-more-common-heres-how-to-survive>
- Urban, C., Schmeiser, M., Collins, J. M., & Brown, A. (2020). The effects of high school personal financial education policies on financial behavior. *Economics of Education Review*, 78, 101786.
- Wang, X., Huang, R., Sommer, M., Pei, B., Shidfar, P., Rehman, M. S., Ritzhaupt, A. D., & Martin, F. (2024). The efficacy of artificial intelligence-enabled adaptive learning systems from 2010 to 2022 on learner outcomes: A meta-analysis. *Journal of Educational Computing Research*, 62(6).
- Willis, L. E. (2011). The financial education fallacy. *American Economic Review: Papers & Proceedings*, 101(3), 429–434.