

INCOME VOLATILITY

A pair of hands is shown holding a small, brown cardboard house-shaped object. The house has a gabled roof and a rectangular window cutout in the center. The hands are positioned on either side of the house, with fingers visible. The background is a soft, out-of-focus grey. The text 'MANAGING THE SWINGS' is overlaid in white, with 'THE' in a smaller, italicized font and a thin white horizontal line passing through it.

MANAGING  
*THE*  
SWINGS

# INCOME VOLATILITY: MANAGING THE SWINGS



September 2016

**The Expanding Prosperity Impact Collaborative (EPIC), an initiative of the Aspen Institute's Financial Security Program, will target a consequential consumer finance issue to explore in depth for a defined period of time. In its inaugural year, EPIC is focusing on income volatility. EPIC's purpose is to synthesize insights to build a more accurate understanding of how income volatility impacts low- and moderate-income families and how best to combat the most destabilizing dimensions of the problem. The EPIC process includes identification and synthesis of data, convenings of cross-sector experts, surveys of a broader group of experts and leaders, and dissemination of issue briefs. EPIC's look at income volatility will conclude with a set of concrete recommendations for moving forward.**

EPIC's first issue brief, "Income Volatility: A Primer," was a comprehensive literature review of what is known about the prevalence, causes, and impacts of income volatility. This second brief looks at managing income volatility at both the household and societal levels. It presents a framework for thinking through possible solutions. Though the conclusions reached are EPIC's alone, this brief was informed by and should be considered part of the EPIC process. Most notably, many of the policy ideas outlined below were unearthed through the expert surveys we administered earlier this year, and the framework itself was workshopped and refined during a two-day convening we hosted in June. Additional information on each claim and policy proposal in this brief, as well as sources, can be found in the Endnotes.



2 The findings, interpretations, and conclusions expressed here are EPIC's alone, and do not necessarily reflect the views of our funders or Advisory Group members.



## THE PROBLEM

As detailed in the first brief, volatility refers to household financial flows that are inconsistent and sometimes unpredictable. Fluctuations in Americans' income appear to be larger, more frequent, and more widespread than in the past. Eighty-seven percent of EPIC expert survey respondents consider income volatility to be a major or critical problem facing the country, and 83% expect income volatility to increase over the next ten years. Instability in labor market earnings, in non-labor transfers (such as public benefits and child support), and in household configurations lead to year-to-year as well as intra-year income shifts. Although some households at times welcome volatility – for example, choosing to work in industries

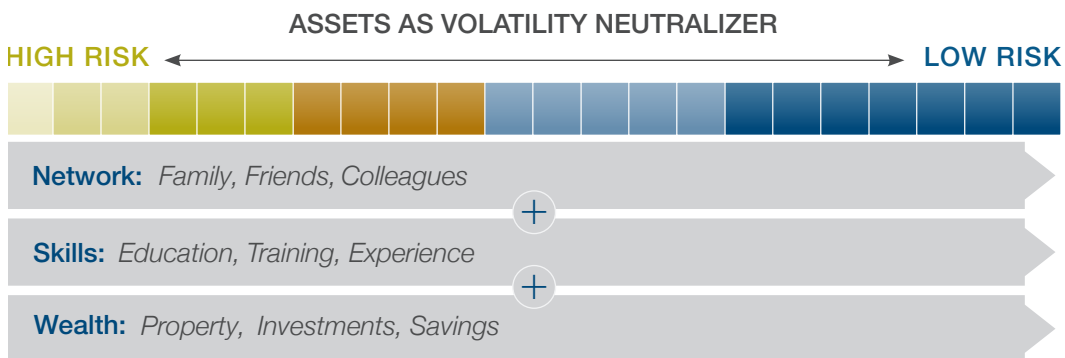
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that pay large bonuses or based on commission – most low- and moderate-income families would prefer stability. Those with unwanted volatility find it hard to cope with the fluctuations and plan for the future, suffering harms that include foregone savings and investment opportunities, instability around basic needs such as housing and food, and even negative child development outcomes.

Volatility appears to be highest among the lowest-income households. The degree to which it is problematic depends in large part on the portfolio of assets available to the household.



For those who can fall back on wealth or a robust support network or highly-marketable skills or experience, income volatility is more likely an inconvenience than a serious burden or obstacle. For those with less asset protection, volatility can present a significant challenge.

## *CURRENT MANAGEMENT STRATEGIES*

Managing income volatility encompasses a spectrum of strategies to prevent it from happening and to mitigate its effects when it does occur. Workers can seek jobs with more consistent hours and pay. A secondary earner can move in and out of the labor force as needed. Unemployment compensation can cushion the blow of a layoff. Other insurance can protect against large, unpredictable expenses such as health care. Savings built up during good times can help with meeting expenses when times are tough. Borrowing can bridge a gap and takes many forms, from tapping credit cards, home equity, and retirement accounts, to putting off bill payments, incurring overdrafts, or leaning on family and friends.

To better understand households' options, we've divided these management strategies into three main categories, roughly positioned along the spectrum of prevention to mitigation: securing stable employment, accessing the social safety net, and relieving liquidity crunches.

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*Having a steady job that provides a predictable flow of earnings offers the best protection against income volatility.*

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### ■ **Securing stable employment**

Having a steady job that provides a predictable flow of earnings offers the best protection against income volatility. Yet this can be difficult for workers to achieve. Employers increasingly seek efficiency – and competitive advantage – through independent contracting strategies and “just-in-time” scheduling that tends to make earnings highly variable and unpredictable, and stable employment scarce. As described in the first brief, around half of the low-wage workforce is subject to precarious scheduling (such as lack of input on the hours to be worked and little advance notice of shift changes or cancellations); and over 40% of Americans who



report variable monthly income blame it on an irregular work schedule. Even jobs with steady hours can generate a volatile income stream due to performance-based pay, irregular pay periods, or lack of paid time off.

There is no sign that these trends will abate. In the current environment, low-wage workers have little workplace bargaining power to demand stability. And the traditional concerns of employment law – minimum wage, overtime pay, protection against discrimination – largely do not affect these practices.

### ■ ***Accessing the social safety net***

Some public benefit and social insurance programs are explicitly designed to shield workers from the vagaries of the labor market and provide basic income during times of economic deprivation. But these programs have proved poorly suited for an era of increased income volatility, when beneficiaries are facing multiple, short-term financial shocks every month, as opposed to long-term spells of unemployment or chronic poverty.

- **Unemployment insurance:** Despite unemployment compensation's role as the country's main social insurance safeguard against employment-related volatility, it is not available to all workers in all industries. One study found it was a resource for only one in five households affected by unemployment – and it doesn't help at all if, rather than being laid off, a worker's hours are reduced. Those who are able to take advantage of it were usually working full-time when they lost their jobs; those who are part-time, temporary, or self-employed usually do not qualify for assistance.
- **Work supports and other anti-poverty programs:** Public poverty amelioration programs – in-kind benefits such as the Supplemental Nutritional Assistance Program (SNAP), Medicaid, the Low Income Heating and Energy Assistance Program (LIHEAP), and Housing Choice vouchers, as well as cash assistance – provide varying degrees of support for households trying to smooth income and expenses. However, as noted in the first brief, these benefits are not typically responsive to short-duration shifts in income and thus cannot fully mitigate that instability. They also carry heavy transaction costs to establish and maintain eligibility. The tax code (most notably, the Earned Income Tax Credit [or EITC], but also the Child Tax Credit) plays a prominent role in the income support safety net, but how the benefits are delivered – via a lump sum check once a year – actually exacerbates volatility. Furthermore, the credit amount itself can go down as wages or hours decrease, making dips in income even more pronounced.



## ■ **Relieving liquidity crunches**

Savings, credit, and insurance offer opportunities for households to mitigate the liquidity challenges resulting from income volatility, but most of the currently available financial tools are not well-designed for income volatility or, worse, are designed to predatorily exploit the vulnerability of those facing income shocks.

- **Savings:** For many, savings function primarily as a short-term emergency or precautionary “buffer stock” to finance consumption when income is low, lessening material hardship. However, only a fraction of households meets their emergency savings goals, and about half do not have any emergency savings. They may know they need more set aside, but they often underestimate how much and, regardless of goal, fall short of what is actually needed to cover unexpected shocks. In part, this is due to a dearth of attractive and accessible savings products. Automatic enrollment in workplace savings accounts is by far the most effective way to get workers saving, but employers rarely offer that benefit to low- and moderate-income employees, and, when they do, the savings account at issue is usually restricted to use in retirement, and not accessible for week-to-week consumption smoothing or emergencies.

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- **Credit:** Accessing credit can be an effective way for households to cope with financial shocks. Secured debt – using asset ownership as collateral to obtain cash, such as with a home equity loan or line of credit, a car title, or a retirement account – is an option for some, but more widespread is the use of unsecured debt – principally credit cards. Dubbed the “plastic safety net,” unsecured credit cards often charge exorbitant interest rates and late fees, quickly trapping borrowers in a cycle of debt. Furthermore, those with restricted access to mainstream secured or unsecured debt – the lowest-income households and others with poor credit ratings, but also more well-off borrowers whose fluctuating income does not fit standard underwriting models – may have to resort to “alternative financial services” or “small dollar credit” such as payday advance loans. These loans often come with even higher interest and fees than those charged by credit cards and tend to rollover and accumulate, creating long-term challenges for the borrower.



- **Insurance:** For most, insurance (principally health, homeowners/renters, and automobile) is a hedge against expense volatility. Income protection may be available from life insurance (mitigating household volatility when there is loss of income due to death of a working family member) or employer-based or personal disability insurance, but these (as well as employer-based health insurance) are often inaccessible to lower-wage workers and those with part-time or variable hours.
- **Real-time payments:** Even as the digital revolution has dramatically accelerated the pace of economic interactions, key elements of the financial services infrastructure are mired in traditional processes that restrict liquidity. Essentially, the current “rails” that financial transactions move on could be faster. Workers with limited liquidity are waiting additional days to have their earnings or other payments credited to their account, reducing their liquidity and ability to meet obligations. It is noteworthy that the current system also results in money being debited out of a person’s account more slowly too – which may be a benefit when someone is liquidity-constrained.

## *A SOLUTIONS FRAMEWORK*

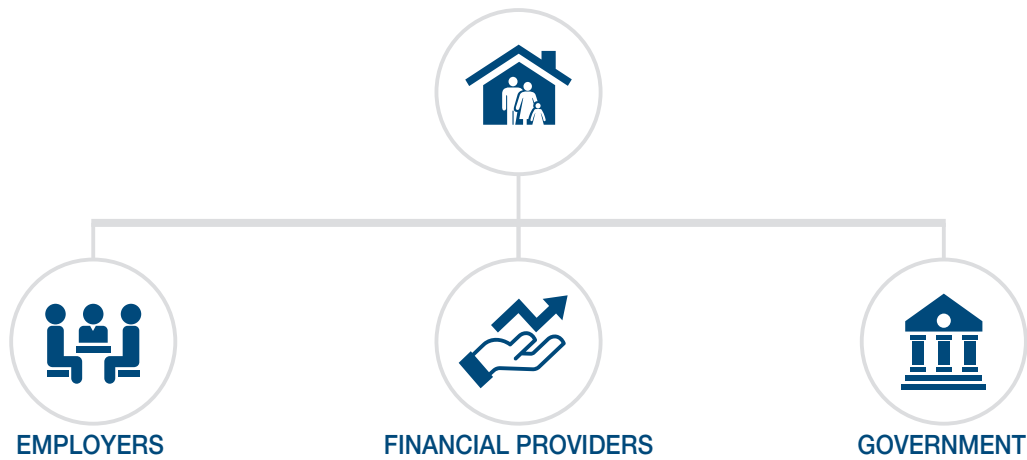
The current strategies for managing income volatility are proving unavailable or inadequate for those most negatively affected. Low- and moderate-income households need a better tool kit. EPIC believes building a set of effective prevention and mitigation solutions first requires creating a framework that clarifies objectives and identifies possible roles for key actors.

The table on page 9 presents such a framework. For each of the three main categories of identified strategies, there are goals and specific functions employers, government, and financial service providers could play. These proposals – which are not recommendations, but simply potential approaches to address the problem – are explored in greater detail in the following section.

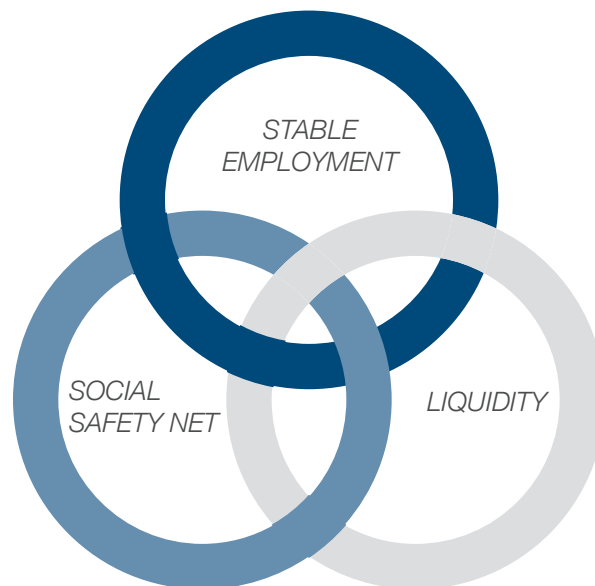
Not explicitly present in the framework is the role households experiencing income volatility should assume. This reflects neither a denigration of their agency nor an abdication of personal responsibility. Households will inevitably be the ones making consequential decisions about managing volatility. But one of the most problematic elements of the current environment is that the actors with the fewest resources – the low- and moderate-income households directly affected – are bearing an increasing share (perhaps even most) of the risk and responsibility (what Jacob Hacker observes as the “great risk shift”). The institutional actors identified in the framework can, and must, do much more.



## HOUSEHOLDS IN NEED OF INSTITUTIONAL SUPPORT



In considering the framework, it is also important to recognize that the three strategic categories sit along a spectrum of prevention to mitigation and sometimes address both. Furthermore, the strategies do not exist in isolation from each other but for any given household may be quite interdependent and connected. For example, in order for a worker to find a new, more stable job, he may need access to government benefits or personal liquidity to afford the requisite training or job search effort.







## *THE FRAMEWORK APPLIED*

This section of the brief populates the solutions framework with specific, potential interventions, informed by a review of the income volatility literature, feedback from EPIC's expert panels and June convening, and a survey of current innovations in the field. The institutional actors vary in the centrality of the role they play for each strategy, and the lead actor is listed first (or shaded, as in the table on page 9). Two key considerations underlying any application of the framework are: (1) scale (can an intervention be sufficiently large and/or pervasive to be effective in managing income volatility?), and (2) achievability (can an intervention be sufficiently practical to warrant allocation of potentially scarce resources to pursue it?).

### ■ **Securing stable employment**

- **What employers can do:** Workplace practices that make employment less secure (and earnings more volatile) belie an assumption that reducing investment in labor maximizes profits. However, there is evidence to the contrary, meaning there can be employer self-interest in keeping workers happy by curtailing income volatility. Shareholders and even customers have a role to play in encouraging companies to become more worker-friendly while benefiting the bottom line. Predictable scheduling practices and responsive payroll processes are key (see sidebars on pgs. 11 and 15 respectively).

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## *Labor and employment law can better ensure a sharing of economic risk in the workplace.*

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- **What government can do:** Better enforcement of existing labor market regulations might reduce employment-related income volatility, but there is also a role for new public policy approaches. Labor and employment law can better ensure a sharing of economic risk in the workplace. Some existing labor protections interact with the current worker classification system to encourage employers to use independent contractors rather than full-fledged employees, which has led many to propose improvements. Government can also facilitate benefit systems for workers that help reduce volatility, such as paid sick or parental leave.




Of growing interest are regulations directly addressing the problems arising from “just-in-time” scheduling (see sidebar).

The government can also ensure stable employment is always available, either by hiring otherwise unemployed workers itself or partnering with private firms to deliver “subsidized jobs,” an approach that has proven effective in certain circumstances.

- **What financial service providers can do:** Financial firms will likely play a limited role in job quality improvement efforts, but there are channels through which they can affect positive change. For example, new financial products can help employers pay workers more frequently than the customary once every two weeks (see sidebar on pg. 15). And well-designed small dollar loans could help workers afford training programs that will make them more valuable employees.

■ ***Accessing the social safety net***

- **What government can do:**
  - o *Unemployment insurance:* Unemployment compensation is not achieving its potential as a frontline defense against income volatility, but policymakers have several options for fixing this (see sidebar on pg. 12).
  - o *Broader earnings insurance:* As the stability of the connection between employers and employees erodes, portability and universality become more critical. One approach for insuring financial stability regardless of the vagaries of a particular job is to establish



## Predictable Scheduling

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In recognition of the challenges posed by unpredictable work schedules, several states and municipalities have enacted or are considering policy options to address this source of volatility:

**“Right to request”** laws that guarantee employees the ability to request flexible or predictable working hours without risk of retaliation can help ensure a steadier income.<sup>1</sup>

**“Reporting time pay”** laws help stabilize the wages of workers who show up for work but are sent home.<sup>2</sup>

**“Split shift pay”** laws require extra pay when workers are employed only during peak periods.<sup>3</sup>

Other regulatory approaches involve advance notice, fixed minimum hours, and guaranteed benefits.<sup>4</sup>

Experts in the field responding to EPIC’s surveys identified more structured or predictable work schedules as a priority concern. Press reports reflect both increasingly vocal demands from affected workers for predictable scheduling and resistance from some (though not all) employers, indicating the likelihood of an ongoing and spirited public policy debate.

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**SOURCES:**

1. *National Women’s Law Center (2015); Center for Law and Social Policy et al (2014); Chartered Institute of Personnel and Development (2014); Grainger and Holt (2005).*
2. *Alexander et al (2014); Schedules That Work Act (2015).*
3. *Id.*
4. *Lambert (2014).*





## Unemployment Insurance

Unemployment insurance is a central component of the American patchwork of social insurance programs, but reform is overdue. Options include:

- **expanding** the share of the workforce qualifying for coverage <sup>1</sup>
- **enabling** partial claims for benefits <sup>2</sup>
- **providing** the benefits as wage insurance when displaced workers take lower-paying jobs <sup>3</sup>
- **creating** a job seekers allowance for periods of extended unemployment <sup>4</sup>

Work-sharing programs – common in other countries but little utilized in the U.S. – also provide an option to traditional unemployment compensation by spreading reductions in hours throughout a company to prevent layoffs. <sup>5</sup>

Redesigned social insurance programs (including expanded unemployment insurance coverage) scored high among EPIC's expert survey panel as a promising government policy intervention for preventing or managing income volatility.

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#### SOURCES:

1. Boguslaw et al (2013).
2. Ben-Ishai et al (2015).
3. Mufson (2016); Shiller (2016); Hacker (2006).
4. West et al (2016).
5. Henry (2011); Hijzen and Venn (2011); Crimmann, Wiessner, and Bellman (2010); Felter (2012); Lahart (2011); Baker (2011); Whittaker (2014); Hassett and Strain (2014); Walsh et al (1997); Ridley and Balducci (2012).

publicly-backed, employee-funded savings accounts that could be drawn from in lieu of unemployment compensation. Facilitating development of stand-alone private-market wage insurance could also specifically target volatility by covering drops in wages or hours.

- o *Taxes:* Alternatives to single, annual payments of safety net tax credits could hedge against volatility (see sidebar on pg. 13). Making more tax-based benefits refundable could smooth the effects of year-to-year volatility, as could viewing tax liability through a multi-year lens.
- o *Eligibility criteria for safety net programs:* The mitigation value of traditional safety net programs could be bolstered by designing eligibility criteria and processes cognizant of the incidence of volatility. Depending on the resources and nimbleness of the government agency involved, this can involve making programs more responsive to changes in income, so that benefits flow to those truly in need, even if only for a few weeks, or less responsive, so that short-term swings don't create unnecessary and administratively burdensome churn in and out of the program.
- o *Universal cash transfers:* The worst consequences of income volatility for those affected – and for the larger society and economy – come to those who lack adequate income. Universal income supports – such as a basic guaranteed income or general child allowance – would provide a floor of stable monthly payments and may become increasingly important as technological change erodes demand for labor.



- **What financial service providers can do:** While the provision of public benefits and social insurance is necessarily a government function, private firms in both the finance and technology industries could help make public transfers more efficient, either by streamlining the application process for beneficiaries or developing low-cost savings or payment products that could pair with government benefits.

- **What employers can do:** Eligibility for many government benefits that can combat income volatility, including unemployment insurance and workers' compensation, requires a bona fide employer-employee relationship. There is evidence, however, that many employers, either purposefully or unwittingly, misclassify their employees as independent contractors, thus denying their workers important protections. More accurate classification of worker type – in addition to simply hiring employees instead of independent contractors – could help improve access to the safety net.

■ **Relieving liquidity crunches**

- **What financial service providers can do:**
  - o *Savings:* The private market can enhance savings by incorporating insights gained from behavioral research into product design and execution. This includes creatively employing both personal goals and past experience as motivators, using frequent reminders, balancing easy access to saved funds with liquidity barriers, providing incentives, and incorporating both automatic and



## Periodic Payment of Tax Credit

Allowing households to choose to receive a portion of the EITC and other tax-based income supports in advance of tax time or to hold back some in savings for deferred disbursement could hedge against volatility. Recent developments in this area include:

- A 2014 pilot in Chicago showing participant interest in and positive results from advancing half of the anticipated EITC during the year in four equal payments.<sup>1</sup>
- A Senate bill to permit an EITC advance in the second half of the year of up to \$500 based on earnings in the first half of the year.<sup>2</sup>
- A set of related proposals (a version of which is included in bipartisan legislation introduced in 2016) to facilitate deferral of a portion of an EITC refund through deposit in a savings account offering an incentive match for funds held in the account.<sup>3</sup>

Together, these ideas offer a portfolio of options an EITC household could use to smooth spikes and dips.

**SOURCES:**

1. *Bellisle and Marzahl (2015). See also Holt (2015).*
2. *Harris (2015). See also Vallas et al (2014)*
3. *Edin et al (2015); Greene (2013).*





## Innovative Credit Underwriting

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Some new financial technology products address the underwriting challenges of volatility outside traditional banking.

- Privlo mines data that does not appear on a traditional credit report to offer lower-cost loans to those whose fluctuating income and employment locks them out of the mainstream mortgage market.<sup>1</sup>
- Vouch looks to those in a borrower's personal and professional network to establish creditworthiness when income or credit history do not suffice.<sup>2</sup>
- Puddle uses reputation-based borrowing to give anyone in the U.S. with a debit card access to capital.<sup>3</sup>

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**SOURCES:**

[1] Schütte & Poynton (2015).

[2] *Id.*

[3] Financial Solutions Lab (2015).

opportunistic elements. Emergency savings can be accumulated using motivations tied to gift-giving and prize-winning. Some product proposals focus explicitly on building savings habits rather than aiming for a specific savings target.

- o *Credit:* With respect to credit, the role of traditional financial services providers to supply volatility management tools remains uncertain. A FDIC pilot giving banks the opportunity to make low-cost small dollar loans saw some success, but the experiment ultimately did not provide a viable alternative to payday lenders. Credit unions have historically been more effective at offering this type of product but at very limited scale.

Credit scores are a key variable affecting access to credit products, but many prospective borrowers are “invisible” to the credit reporting organizations. Some alternative product innovations aim at credit score improvement by reporting financial behaviors – like paying rent – that have historically gone unreported (see sidebar).


- o *Insurance:* There are many economic and regulatory barriers to entering the traditional insurance market, but technological advancements are lowering these hurdles, allowing for “friendsurance” and other unconventional pooling techniques to lower families' risk of shouldering large expenses on their own. Auto insurance premiums can be better tied to risk and ability to pay using real-time tracking of miles driven. Microinsurance products (a fast-growing product in the



developing world) could address the risks of small though consequential, unpredictable expenses such as car or appliance repairs.

- o *Multi-purpose products:* Some products can simultaneously meet multiple consumer needs, such as facilitating spending, saving, and credit through a single account interface. Prepaid debit cards can be used to make purchases while also restraining spending and offering a “savings pocket” to build a reserve, as can secured credit cards. An app called Even helps workers manage income flow by holding money from above-average paychecks in a savings account that is drawn from automatically when pay is below average – or by providing an interest-free loan during below-average months if accumulated savings are insufficient.
- **What government can do:** The public sector’s regulatory oversight role can affect the private market products available to households. Improved public regulation of the private credit market – in particular, alternative financial services – could curtail the harm caused by products that exacerbate the negative consequences of experiencing volatility. However, regulatory approaches tend to have unintended consequences; it can be hard (though not impossible) to distinguish between “good” and “bad” products, and curtailing bad products can restrict access to needed liquidity.

Some policy initiatives provide an infrastructure supporting the kind of small savings that are useful as a hedge against volatility. The Treasury Department’s *myRA* program provides a no-fee, government-backed savings vehicle for workers



## More Accessible Pay

An intriguing source of innovation – addressing in part the liquidity concerns that contribute to use of payday loans – helps workers match when they get paid to when they need the money. Current product options that allow workers to access more quickly what they have already earned include:

- PayActiv advances unpaid earnings based on employer-provided data. Its partnership with Goodwill of Silicon Valley has helped workers there better meet their day-to-day financial challenges.<sup>1</sup>
- Flexwage connects with payroll systems directly to draw down from the employer and disburse to workers their accrued pay. In 2015, payroll giant ADP announced it would be offering Flexwage on its integrated, cloud-based app store.<sup>2</sup>
- Activehours enables those paid hourly (including “gig” workers) to draw earned funds based on digitally-submitted timesheets. Workers at 7,500 companies, including Starbucks, Target, and Walmart, have used the service.<sup>3</sup>
- DailyPay, Clearbanc, GoBank, and Stripe make instant payments to on-demand drivers, including those at Lyft and Uber.<sup>4</sup>

These companies have generated lots of interest among venture capital firms and national press outlets – but it remains to be seen if the budding industry can produce sizable improvements to workers’ financial health.

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### SOURCES:

1. Cowley (2016).
2. *Id.*; FlexWage Solutions (2015).
3. Cowley (2016); Kieler (2014); Said (2016).
4. Cowley (2016); Said (2016); Lyft (2015).



without access to a retirement plan through their employer. An additional innovation would be permitting use of 401(k) accounts to build “rainy day” funds. The Department of Housing and Urban Development’s Family Self-Sufficiency Program puts public housing rent increases resulting from higher household earnings in a savings account available upon program graduation. This is one example of many possible tweaks in safety net programs to support accumulation of emergency savings and access to emergency credit.

Government can also provide incentives for households to save on their own, and there are a number of pending proposals to match contributions made to savings accounts.

- **What employers can do:** In addition to making earned pay available to workers on a more frequent basis (see sidebar on pg. 15), employers can look at paying bonuses over time rather than as a lump sum and using a “13th-month” payroll schedule that provides an extra paycheck in December when workers’ budgets are most stressed. Companies can also help facilitate savings by allowing – or automating – customizable withholdings from paychecks. Channeling a portion of a worker’s pay into an emergency savings account, for example, could help families build a financial cushion that will help relieve liquidity crunches and enhance their overall economic resiliency.

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*Better managing income volatility will require a holistic approach that combines product innovation and policy reform; prevention and mitigation; and labor and financial services interventions.*

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## ***THE ROAD AHEAD***

Better managing income volatility will require a holistic approach that combines product innovation and policy reform; prevention and mitigation; and labor and financial services interventions. This brief identifies focal areas for this needed innovation, and it provides a solutions framework for analyzing who is best positioned to act and what promising practices those actors can pursue. That analysis is grounded in the emerging convergence EPIC has identified in its work to date: a thorough scan of the academic research and articles in the





popular press; four expert surveys; and two expert convenings, one of which was spent intensively workshopping and refining this framework.

Yet even with this emerging convergence, significant uncertainty and disagreements remain. The path forward requires attention to three key questions: what works; at what scale; and at what cost. That analysis must look beyond a narrow view of effectiveness for the particular population studied to consider market viability broadly defined: the value proposition for attracting sufficient investment, the relative appeal among the competing priorities of public and private actors, and the anticipated reduction in the overall incidence of the negative consequences of income volatility. EPIC will tackle these questions as we prioritize two tracks of work in the coming months: (1) digging deeper into solutions to assess which are worthy of immediate action, real-world testing, or further research; and (2) building the committed leadership and networks needed to bring to market and policy the solutions that will most help Americans.

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## ■ ENDNOTES

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### THE PROBLEM

**FIRST BRIEF** – Expanding Prosperity Impact Collaborative (2016).

**FLUCTUATIONS** – See, for example, Dynan, Elmendorf, and Sichel (2012); Bania and Leete (2009).

**SURVEY** – These results, which have not yet been published, come from two EPIC-administered Delphi Surveys conducted in the spring of 2016. A total of 89 experts from various fields responded to a series of questions about the prevalence, causes, and impact of income volatility. More detailed information will soon be posted on [www.aspenepic.org](http://www.aspenepic.org).

**FOREGONE SAVINGS** – Pew Charitable Trusts (2016).

**HOUSING AND FOOD INSTABILITY** – Boguslaw et al (2013); Bania and Leete (2007).

**NEGATIVE CHILD DEVELOPMENT OUTCOMES** – Gennetian et al (2015).

**LOWEST INCOME HOUSEHOLDS** – Bania and Leete (2009).

### CURRENT MANAGEMENT STRATEGIES

#### ■ *Securing stable employment*

**PRECARIOUS SCHEDULING** – Lambert et al (2014)

**IRREGULAR WORK SCHEDULE** – Board of Governors of the Federal Reserve System (2016).

#### ■ *Accessing the social safety net*

**UNEMPLOYMENT COMPENSATION'S ROLE** – Boguslaw et al (2013) found that 1 in 5 households with lost income due to unemployment used unemployment insurance to make ends meet. Dynarski and Gruber (1997) found that unemployment compensation replaces 7 to 22 cents of each dollar of earnings lost.

**PUBLIC POVERTY AMELIORATION PROGRAMS** – Blundell and Pistaferri (2003) calculated that Food Stamps (now called SNAP) reduced by a third the change in food consumption resulting from an income shock. Gunderson and Ziliak (2003) found that Food Stamps reduced income volatility by about 12% and food consumption volatility by about 14%, but the consumption smoothing effect was greater during in the 1980s than the 1990s. Similarly, Hardy (2015) found that safety net transfer payments appear to have become, dating back to 1980, less responsive to income instability for the bottom quintile of the income distribution, female-headed households, and black families. See also Bania and Leete (2007) (including also the Special Supplemental Nutrition Program for Women, Infants, and Children, or WIC). Gruber (2000), examining the Aid to Families with Dependent Children (AFDC) program that was the precursor to today's Temporary Assistance for Needy Families (TANF) program that provides cash assistance to a much smaller caseload, found that an additional dollar of benefits smoothed consumption by increasing spending on food and housing by 30 cents, with a greater benefit for those becoming eligible due to marital dissolution.

**THE TAX CODE** – Halpern-Meekin et al (2015).

#### ■ *Relieving liquidity crunches*

**BUFFER STOCK** – Deaton (1991) explores how the traditional “life-cycle model” does not explain much savings behavior, and household assets act like a buffer stock against negative income shocks. Carroll and Samwick (1997) find a pattern of precautionary wealth holding not consistent with standard life-cycle optimization, with households engaging in buffer stock savings behavior during most of their working lifetimes. Deaton (1990) notes that savings “is not only about accumulation, but about consumption smoothing in the face of volatile incomes, and providing insurance for poor people whose lives are difficult and uncertain.”



**LESSENING MATERIAL HARDSHIP** – Mills and Amick (2010) find that having liquid assets, even if less than \$2,000, reduces the incidence of various financial hardships (missed payments, foregone medical care, food insecurity) by 5.1 percentage points. Choi et al (2015) found that changes in consumption caused by income volatility were three times greater for individuals with low wealth and low family wealth than for those with high wealth and high family wealth. See also McKernan et al (2009); Collins and Gjertson (2013); Pew Charitable Trusts (2016).

**EMERGENCY SAVINGS GOALS** – Morduch et al (“Emergency” 2015) observed that only 7% of U.S. Financial Diaries households met their emergency savings goals and that financial literacy did not change savings goals nor help in reaching those goals. This despite the fact that U.S. Financial Diaries households saved, on average, 17% of their income and put three times more into savings than their year-end savings balance (Morduch et al, “Horizons” 2015).

**HALF DO NOT HAVE ANY EMERGENCY SAVINGS** – Abbi (2012) found that 51% of low- to moderate-income households surveyed had no emergency savings set aside, and Morduch et al (“Emergency” 2015) found that nearly 50% of U.S. Financial Diaries households had no emergency savings.

**THEY MAY KNOW** – Four out of five Survey of American Family Finances households (Pew “Resources” 2015) had lower savings than what they think similar households should have. Brobeck (2008) found that, among households in the lowest income quintile, the perception was of annual emergency savings needs of \$1,500 while the amount those households typically spent on unexpected expenses annually was around \$2,000. On the other hand, Morduch et al (“Emergency” 2015) found that 71% of participating households had an emergency savings goal that would cover all income dips during the year. Based on survey and transaction data, Farrell and Greig (2015) found that the typical household did not have a sufficient financial buffer to weather observed income and consumption volatility.

**WORKPLACE SAVINGS ACCOUNTS** – Rhee and Boivie (2015).

**EFFECTIVE WAY** – Klawitter and Morgan-Cross (2012).

**OPTION FOR SOME** – Collins and Gjertson (2013); Boguslaw et al (2013); Hurst and Stafford (2004); Fellowes and Willemin (2013).

**PRINCIPALLY CREDIT CARDS** – In the National Financial Capability Study (FINRA Investor Education Foundation 2013), 71% of Americans reported using credit cards, and 26% had four or more cards. Morduch et al (2014) noted that credit cards were the most prevalent form of credit among the low- to moderate-income U.S. Financial Diaries households, with 55% using them. Draut and Silva (2003) found that the share of families earning between \$10,000 and \$25,000 with credit cards rose from 52% in 1989 to nearly 60% in 2001, and the proportion with cards among those with income below \$10,000 a year rose from about a quarter to over a third. Sullivan (2008) found that households at 20% to 60% of the financial asset distribution increased unsecured debt by 11.5 to 13.4 cents for each dollar of earnings lost to unemployment. Abbi (2012) found that those without emergency savings were 9 percentage points more likely to charge a credit card when faced with a financial emergency. Traub and Ruetschlin (2012) found that, in 2012, four in ten households used a credit card to pay for basic living expenses that could not be covered using their checking or savings accounts. And Pew Charitable Trusts (“Debt” 2015) found that debt held by those in the bottom fifth of the income distribution increased from one-fifth of their income in 2007 to half of their income by 2013.

**PLASTIC SAFETY NET** – Traub and Ruetschlin (2012).

**RESORT TO ALTERNATIVE FINANCIAL SERVICES** – Morgan-Cross and Klawitter (2011) found that most households that use alternative financial services do so to make up for lost income or to cover daily living expenses, and likelihood of use is greater among minority groups, the unbanked, and those with low incomes. Levy and Bianchi (2013) found that, when household cash flows are misaligned, nearly one-third turn to alternative small-dollar credit to cover regular expenses. Hardisty et al (2015) found that increased payday loan use is associated with expense prediction bias, with the bias driven more by underestimating the number of future expenses rather than their amounts. See also US Financial Diaries (2015); Sussman et al (2014); Sullivan (2008); Marte (2015).

**CREATING LONG-TERM CHALLENGES** – Meltzer (2011) found that payday loan use leads to increased difficulty paying mortgage, rent, and utility bills. Dearden et al (2010) found that those using debt for an



extended period of time or at high interest rates to finance daily consumption risk becoming overburdened by debt and not accumulating assets over time. Seefeldt (2015) noted that taking on debt to smooth consumption can lead to other challenges such as wage garnishment and lower financial well-being. Manning (2000) found that expanded access to credit can lead to adverse outcomes (e.g., poor health, divorce, and drug use). And the U.S. Postal Service Office of the Inspector General (2014) found that, among households living outside the financial mainstream, the average amount spent on interest and fees for alternative financial services each year is \$2,412.

**INACCESSIBLE TO LOWER-WAGE WORKERS** – Among those making less than \$40,000 in annual income, only 11% have disability insurance, 33% have life insurance, and 75% have health insurance (Board of Governors of the Federal Reserve System 2016).

**TRADITIONAL PROCESSES** – The Federal Reserve Banks (2013).

## **THE FRAMEWORK APPLIED**

### ■ *Securing stable employment*

**EVIDENCE TO THE CONTRARY** – Ton (2012).

**SHAREHOLDERS AND CUSTOMERS** – Palazzi and Starcher (1998).

**BETTER ENFORCEMENT** – Luce and Fujita (2012) found, based on a survey of retail workers in New York City, that 73% were not paid for a full four-hour shift if sent home early (as required by New York state law).

**SHARING OF ECONOMIC RISK** – Compa (2015); Horowitz (2012); Rust (2012).

**PROPOSE IMPROVEMENTS** – See, for example, Harris and Krueger (2015).

**FACILITATE BENEFIT SYSTEMS** – National Partnership for Women & Families (2014).

**SUBSIDIZED JOBS** – Shaefer (2016) called for public-private partnerships to create more jobs for struggling families who want to work but cannot find regular employment. See also Dutta-Gupta et al (2016).

**SMALL DOLLAR LOANS** – See, for example, Wells Fargo (2016), which offers private student loans for career-training programs and non-traditional schools, or banks in the United Kingdom (2016), which offer “Professional and Career Development Loans” of as low as £300.

### ■ *Accessing the social safety net*

**SAVINGS ACCOUNTS** – Feldstein and Altman (2007). See also Vodopivec (2010) (simulating the Feldstein and Altman proposal in Slovenia).

**PRIVATE-MARKET WAGE INSURANCE** – Shiller (2016). See also the private startup SafetyNet, that insures against job loss and disability ([www.billsafetynet.com](http://www.billsafetynet.com)), or the supplemental unemployment insurance provider IncomeAssure ([www.incomeassure.com](http://www.incomeassure.com)).

**REFUNDABLE** – Batchelder (2007) advocated converting tax expenditures – such as the housing subsidy provided by the deduction for mortgage interest – into refundable credits so that their value to the taxpayer remains constant and is not diminished when income fluctuates lower.

**MULTI-YEAR LENS** – Liebman (2002) proposed basing the income tax on average income over a multi-year period to lower the tax burden on taxpayers with year-to-year variability. Batchelder (2003) proposed two more limited income averaging devices: averaging the EITC over a two-year period, and carrying back the standard deduction and personal and dependent exemptions.

**DESIGNING ELIGIBILITY CRITERIA** – Prell (2008) called for easier and less frequent recertifications in food assistance programs to allow for the incidence of income volatility. Boadway, Cuff, and Marceau (2006 and 2008) advocated that transfer programs with short time frames for initiation (e.g., cash and food assistance) should be more lenient in initial screening (with less concern about “false positive” eligibility errors) to be most responsive to income variability. Khullar (2016) looked at health coverage under the Affordable Care Act and the need to harmonize Medicaid and subsidized private insurance to minimize



administrative complications and disruptions in coverage due to intra-year fluctuations in income. See also Powell et al (2009).

**UNIVERSAL INCOME SUPPORTS** – Barrow (2016); Garfinkel et al (2016).

**STREAMLINING APPLICATION PROCESS** – See, for example, the mobile app Propel (<http://www.joinpropel.com/>).

**LOW-COST PRODUCTS** – See, for example, a proposal for TANF bank accounts from Gill et al (2015).

**MISCLASSIFY** – Government Accountability Office (2009).

■ *Relieving liquidity crunches*

**ENHANCE SAVINGS** – Pew Charitable Trusts (2016) (benefits of automatic savings); Cohen et al (2015) (automation and reminders); Holguin (2015) (reminders); Moulton et al (2015) (reminders and matched deposits); Manturuk et al (2015) (text messaging to solicit instantaneous transfers into savings); Khashadourian (2015) (incentives such as sign-up bonuses, matches, and enhanced interest); Grinstein-Weiss et al (2015) (savings from tax refunds through the return preparation software); Mintz (2015) (matching of saved tax refunds); Abbi (2012) (connecting to pre-existing behavior); Financial Solutions Lab (2015) (using income spikes to fund savings).

**GIFT-GIVING & PRIZE-WINNING** – Abbi et al (2012); Cohen (2014).

**BUILDING SAVINGS HABITS** – Khashadourian (2015) proposed Savings Accelerator Accounts that build savings habits with incentives without being tied to a specific savings amount. Caesar (2015) describes a “micro-saving” program with community college students funded by leftover coins. Heisler and Lutter (2015) suggested incorporating a savings component in debt management plans to build emergency savings.

**REMAINS UNCERTAIN** – Morgan-Cross and Klawitter (2012).

**FDIC PILOT** – The FDIC’s Small-Dollar Loan Pilot Program ran from 2008 to 2009 and consisted of 28 banks making more than 34,400 loans averaging about \$700 with a term of 10 to 12 months. According to Miller et al (2010), participating banks found the loans a useful business strategy for building long-term customer relationships.

**CREDIT UNIONS** – Frankel (2015).

**CREDIT SCORE IMPROVEMENT** – The Annie E. Casey Foundation (2016) reported that a good credit rating (which 70 million Americans do not have) saves the average borrower \$250,000 in interest over a lifetime. The Self-Help Federal Credit Union’s Fresh Start loan program (Wolff 2016) has borrowers make monthly installment payments which go into a savings account and are given to the borrower when the loan is fully repaid, and the payment information is provided to credit bureaus to improve credit scores. The credit bureaus themselves have also started developing alternative credit score technology, with FICO, Equifax, and LexisNexis Risk Solutions recently partnering to create FICO Score XD, which uses data that is not included in traditional credit files (PRNewswire 2016).

**FRIENDSURANCE** – Schütte and Smyth (2015).

**AUTO INSURANCE** – Schütte and Smyth (2015); Ramanand (2015).

**MICROINSURANCE** – Ramanand (2015).

**PREPAID CARDS** – Collins et al (2014). See also Doorways to Dreams Fund (2013).

**SECURED CREDIT CARDS** – Henderson (2015) described how the SmartSave card (a secured credit card offered with financial education) brings people into mainstream financial systems “through the side door” by allowing card users to build credit history and create a contingency savings fund. See also Levy et al (2016).

**EVEN** – Financial Solutions Lab (2015); Giridharadas (2015).

**IMPROVED PUBLIC REGULATION** – For example, Seefeldt (2015) advocated capped fees and interest



rates. And Iyer and Ganguly (2016) show that new rules on how overdraft fees are calculated could save consumers up to \$30 billion a year.

**UNINTENDED CONSEQUENCES** – Theodos et al (2010) found that restrictions of refund anticipation loans involving military personnel’s federal income tax refunds led to substitution of closely-related refund anticipation checks. Zinman (2010) found that restrictions in Oregon on payday loans shifted would-be borrowers to plausibly inferior substitutes leading to deterioration in their overall financial condition.

“RAINY DAY” 401(K) – Laibson (2015).

**FAMILY SELF-SUFFICIENCY PROGRAM** – Seidman (2016).

**POSSIBLE TWEAKS** – For example, O’Brien (2010) suggested public interest-free loans against future government benefits, modeled after the United Kingdom’s crisis loan program. And Lewis et al (2014) called for eliminating asset tests for benefits programs to permit accumulation of assets. However, Hurst and Ziliak (2006) found that relaxing asset limits for TANF had no impact on savings rates among low-risk households.

**PENDING PROPOSALS TO MATCH CONTRIBUTIONS** – Black and Schreur (2014) proposed a Financial Security Credit tied to contributions made to a range of savings options including readily-accessible liquid accounts. Mensah et al (2012) proposed a refundable Freedom Savings Credit that would provide a government match to retirement contributions. Levin (2015) envisioned federally-funded Child Savings Accounts and a Financial Security Credit to match savings by taxpayers.

**13TH-MONTH PAYROLL SCHEDULE** – Employees in most Latin American countries, for example, are entitled to a 13th month of salary (Celegro 2012).

**CUSTOMIZABLE WITHHOLDINGS** – See, for example, the New York City Housing Authority (2016), which allows public housing residents who are also city employees to pay their rent via a payroll deduction. Or the startup Student Loan Genius, which allows workers to pay student loans directly through their employer’s payroll system and qualify for an employer contribution into their retirement account at the same time (Collins and Steverman 2016).

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