CATASTROPHIC HEALTH COVERAGE ACT

Technical Evidence Compendium

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PART I: FISCAL FRAMEWORK

Section 1.1: Healthcare Spending Concentration

Healthcare spending is highly concentrated among a small percentage of patients. The Agency for Healthcare Research and Quality (AHRQ) Medical Expenditure Panel Survey (MEPS) provides the authoritative source for this concentration data. According to MEPS Statistical Brief NBK613741, the top 5% of the U.S. civilian noninstitutionalized population ranked by healthcare expenditures accounted for 49.7% of total healthcare expenditures in 2022.[1]

Table 1: Healthcare Spending Concentration by Percentile (2022)

Percentile	Share of Spending	Annual Threshold	Source
Top 1%	21.7%	≥$80,990/year	MEPS[1]
Top 5%	49.7%	—	MEPS[1]
Top 5% (Medicare FFS)	46%	—	MedPAC[2]
Bottom 50%	2.8%	<$1,361/year	MEPS[1]

The consistency of the ~50% concentration factor across both the general population (MEPS) and Medicare FFS beneficiaries (MedPAC) supports its use as a conservative estimator for catastrophic spending subsets across payer categories.

The costliest 5% of FFS beneficiaries account for 46% of annual Medicare FFS spending; the costliest 25% account for 85% of spending.[2] Characteristics of high-cost Medicare beneficiaries include: multiple chronic conditions, use of inpatient hospital services, dual eligibility for Medicare and Medicaid, and being in the last year of life.[2]

Section 1.2: National Health Expenditures by Payer

Total U.S. healthcare spending in 2023 was $4.9 trillion according to the CMS NHE Fact Sheet.[3]

Table 2: National Health Expenditures by Payer (Calendar Year 2023)

Payer	Total Spending	NHE Share	Growth
Private Health Insurance	$1,464.6 billion	30%	11.5%
Medicare	$1,029.8 billion	21%	8.1%
Medicaid	$871.7 billion	18%	7.9%
Out-of-Pocket	$505.7 billion	10%	7.2%
TOTAL NHE	**$4.9 trillion**	**100%**	**7.5%**

All values are extracted verbatim from the CMS NHE Fact Sheet, Calendar Year 2023 data.[3] Private health insurance spending grew at its fastest rate since 1990 (11.5%), driven by increased enrollment and per-enrollee spending.[3]

Section 1.3: Calculation Methodology for Catastrophic Spending

Catastrophic spending for each payer is calculated by applying the 50% concentration factor to verified payer totals from CMS National Health Expenditure

(NHE) data. This provides a conservative estimate since not all high-cost care qualifies as agency-decorrelated catastrophic care under CHCA definitions. The formula applied is:

Catastrophic Spending = Total Payer Spending × Concentration Factor

For Medicare FFS, the MedPAC-verified 46% factor is used rather than the general 50% factor.[2] For Workers' Compensation, the 50% factor is applied to the National Safety Council total cost figure, which includes both medical and indemnity costs.[4]

Table 3: Estimated Catastrophic Spending by Payer (2023 Dollars)

Payer	Total	Factor	Catastrophic	Ref
Private Insurance	$1,465B	50%	$732B	[1],[3]
Medicare	$1,030B	46%	$474B	[2],[3]
Medicaid	$872B	50%	$436B	[1],[3]
Workers' Comp	$177B	50%	$88B	[1],[4]
TOTAL	**$3,544B**	**—**	**$1,730B**	**—**

Baseline catastrophic healthcare spending across major payers totals approximately $1.73 trillion annually. This represents existing spending that would be consolidated under CHCA—not new government spending.

Section 1.4: Critical Distinction—Total Catastrophic vs. Agency-Decorrelated

The $1.73 trillion figure represents **total** catastrophic spending (top 5% of spenders). However, CHCA covers only the **agency-decorrelated portion**—catastrophic costs arising from circumstances beyond individual control:

- Genetic conditions and congenital disorders
- Accidents (motor vehicle, workplace, environmental)
- Environmental and toxic exposures
- Infections and communicable diseases
- Other conditions with no lifestyle/behavioral component

The agency-decorrelated costs are estimated at **~$575–645 billion annually**—approximately 35–40% of total catastrophic spending.[5] The remaining catastrophic spending involves conditions with lifestyle or behavioral components that CHCA intentionally excludes to preserve individual responsibility.

For CHCA fiscal planning, the operative baseline is ~$575–645 billion, not $1.73 trillion.

Section 1.5: Agency-Decorrelated Cost Components

CHCA's fiscal baseline derives from four verified cost categories representing conditions substantially beyond individual control:

Table 4: Agency-Decorrelated Cost Components

Category	Annual Amount	Primary Source
Rare/Genetic Disease Direct Medical	~$449 billion	Yang et al. 2022[6]
Motor Vehicle Accidents (innocent victims MEDICAL COSTS ONLY)	~$25 billion	NHTSA[7]

Category	Annual Amount	Primary Source
Occupational Injury/Illness	~$50–65 billion	Leigh 2011[8]; NSC[4]
Environmental Exposures	~$50–105 billion	Bracketed estimate (Part IV)
TOTAL BASELINE	**~$575–645 billion**	**—**

Overlap adjustments have been applied to prevent double-counting of hereditary cancers in the Yang rare disease figure, occupational cancers in the Leigh figure, and environmental cancers in the environmental exposure estimate. The total represents 12–14% of National Health Expenditures.

Section 1.6: Fiscal Framework Summary

Table 5: CHCA Fiscal Framework Summary

Component	Amount	Type
Context: Total catastrophic (top 5%)	~$1.73 trillion	Reference only
CHCA Baseline: Agency-decorrelated	**$575–645 billion**	Transfer (existing spending)
Enhancement: Administrative efficiency	$41–46 billion	Annual savings
Enhancement: Systematic subrogation	$8–18 billion	Annual incremental recovery
TOTAL NET FISCAL IMPROVEMENT	**$49–64 billion**	**Annual**

The agency-decorrelated baseline represents existing spending currently fragmented across private insurers, Medicare, Medicaid, and Workers' Compensation. CHCA consolidates this spending rather than creating new expenditure.

PART II: ADMINISTRATIVE EFFICIENCY EVIDENCE

Section 2.1: Scope Clarification

The administrative cost data presented in this section describes the **entire U.S. healthcare system** compared to Canada's single-payer system. **CHCA does not propose applying a single-payer structure to the entire healthcare market.**

CHCA proposes consolidating only the **agency-decorrelated catastrophic care portion** (~$575–645 billion) under a unified federal program. The remaining healthcare market remains in the existing multi-payer structure with no administrative regime change.

The Himmelstein data is relevant as evidence that single-payer structures achieve lower administrative costs for the coverage they provide. CHCA applies this principle **only to the catastrophic care segment**, not to the entire healthcare system.

Section 2.2: U.S. vs. Canada Administrative Cost Comparison

The definitive comparison of U.S. and Canadian healthcare administrative costs is provided by Himmelstein, Campbell, and Woolhandler in their 2020 *Annals of Internal Medicine* study. This peer-reviewed analysis used 2017 data from government reports, accounting data filed with regulators, physician surveys, and census data on healthcare employment.[9]

Table 6: Healthcare Administrative Costs, U.S. vs. Canada (2017)

Category	United States	Canada	Source
Admin % of NHE	34.2%	17.0%	Table 2[9]
Total admin per capita	$2,497	$551	Table 4[9]
Insurers' overhead per capita	$844	$146	Table 4[9]
Hospital admin per capita	$933	$196	Table 4[9]
Physicians' admin per capita	$465	$87	Table 4[9]
Total admin spending	$812 billion	$20 billion	Table 3[9]

The U.S. spends more than 4.5 times as much per capita on healthcare administration as Canada ($2,497 vs. $551), with the largest differentials in insurers' overhead (5.8×) and hospital administration (4.8×).[9]

Section 2.3: U.S. vs. OECD Average Comparison

The Peterson-KFF Health System Tracker provides an alternative comparison using 2021 OECD data.[10]

Table 7: Healthcare Administrative Costs, U.S. vs. OECD Average (2021)

Category	United States	OECD Average	Difference
Admin spending per capita	$925	$245	$680
Total health spending per capita	$12,197	$6,514	$5,683

Citation Correction: The $925 vs. $245 per capita figure was previously misattributed to Himmelstein et al. The actual Himmelstein figures for U.S. vs. Canada are $2,497 vs. $551 per capita.[9]

Section 2.4: Administrative Savings Estimate for CHCA

If consolidated catastrophic care achieves a 5% administrative rate versus the current blended private rate of approximately 12%, this represents a 7 percentage point reduction:

$575–645B × 0.07 = $41–46 billion potential annual administrative savings

This estimate is conservative because it applies only to the agency-decorrelated catastrophic spending subset.

PART III: JOB LOCK AND ENTREPRENEURSHIP EVIDENCE

Section 3.1: Why This Evidence Is Directly Relevant to CHCA

CHCA addresses only agency-decorrelated catastrophic care (~$575–645B annually), not comprehensive coverage. However, the job lock and entrepreneurship lock literature provides **direct evidence** for CHCA's value proposition because:

1. The primary *fear* driving employment lock is catastrophic events—major illness, cancer, serious accidents—not routine care costs.
2. Workers don't stay in unwanted jobs worried about $50 copays; they stay worried about $100,000+ cancer treatments.

3. CHCA eliminates exactly this catastrophic exposure, addressing the psychological driver of lock while preserving market-based routine care.

Section 3.2: Job Lock Prevalence Evidence

Table 8: Job Lock Prevalence Data

Finding	Value	Source
Workers staying in unwanted jobs for health insurance	16%	Gallup/West Health 2021[13]
Rate for lower-income workers (<$48K)	28%	Gallup/West Health 2021[13]
Rate for higher-income workers (>$120K)	10%	Gallup/West Health 2021[13]
Black worker rate	21%	Gallup/West Health 2021[13]
White worker rate	14%	Gallup/West Health 2021[13]
Reduction in voluntary turnover from EPHI	25%	Madrian 1994[14]

Survey parameters for Gallup/West Health: n=3,870 adults, March 15–21, 2021, margin of error ±2.2 percentage points.[13]

The 2022 Treasury Report on Labor Market Competition explicitly identified extending health insurance coverage to reduce job lock and boost mobility as a priority policy intervention.[15]

Section 3.3: The Medicare Age-65 Natural Experiment

Fairlie, Kapur, and Gates (2011) documented a striking discontinuity in business ownership rates at age 65—the moment workers become Medicare-eligible.[16]

KEY FINDING: Business ownership rates jump from **24.6% to 28.0%** in the **single month** workers turn 65 and qualify for Medicare. This represents a **3.4 percentage point absolute increase (13.8% relative increase)** occurring precisely when universal catastrophic coverage becomes available.[16]

No similar jump occurs at any other age between 55–75. Not at 62 (Social Security eligibility), not at 59.5 (pension critical age)—only at 65, when catastrophic hospital coverage (Medicare Part A) becomes available.[16]

Table 9: Medicare Age-65 Discontinuity Evidence

Metric	Value	Source
Business ownership before age 65	24.6%	Fairlie et al. 2011[16]
Business ownership after age 65	28.0%	Fairlie et al. 2011[16]
Absolute increase	3.4 pp	Calculated
Relative increase	13.8%	Calculated
Sample size	102,027 workers	Fairlie et al. 2011[16]

Methodology: Regression discontinuity design using matched monthly CPS data to identify exact birth months. Sample: 102,027 workers aged 55–75 from matched Current Population Surveys 1996–2006. Controls: age function, year fixed effects, demographics, industry.[16]

The authors ruled out confounding factors: no statistically significant change in employment rates at age 65; no similar jump at age 62 (earliest SS eligibility); pension wealth accrual peaks before 65.[16]

This finding is **proof of concept for CHCA**: Medicare Part A primarily covers hospital/catastrophic care, not comprehensive routine coverage. Yet this catastrophic protection alone is sufficient to unlock suppressed entrepreneurship.[16]

Section 3.4: Why ACA's Entrepreneurship Effect Was Limited

The ACA produced modest entrepreneurship gains: 3–4% increase in self-employment among older adults.[17] However, Blume-Kohout (2024, *ILR Review*) found that when political uncertainty about ACA's viability increased in 2017–2018, self-employment among those with high insurance demand fell back to pre-ACA levels.[21]

The ACA addressed insurance availability but not the core fear:

- **Catastrophic exposure persists:** ACA plans feature $9,000–$18,000+ out-of-pocket maximums.[19]
- **Premium burden deters:** 1% premium increase → 0.76% decrease in self-employment entry.[20]
- **Political uncertainty creates fear:** Uncertain coverage creates the same lock as unavailable coverage.[22]

Section 3.5: CHCA's Structural Advantage

CHCA is designed to provide exactly what enables the Medicare-65 entrepreneurship surge:

- Guaranteed catastrophic coverage from first dollar for agency-decorrelated conditions
- Complete portability—coverage moves with the person, not the job
- No premium burden for catastrophic tier—financed through consolidated existing spending
- Constitutional/statutory permanence—not subject to annual appropriations uncertainty

By eliminating catastrophic cost exposure directly—rather than merely making insurance available for purchase—CHCA addresses the *psychological driver* of job lock and entrepreneurship lock.

PART IV: ENVIRONMENTAL EXPOSURE COSTS

Section 4.1: The Environmental Cost Data Gap

For other agency-decorrelated categories, peer-reviewed studies provide direct medical cost figures derived from claims data or disease registries. Environmental exposure lacks a comparable comprehensive figure because:

4. **The diagnosis code determines payment, not causation.** Whether a patient's asthma was triggered by genetic predisposition, workplace exposure, or neighborhood air pollution, the ICD-10 code is J45 (asthma) and the payer is whoever covers that patient.

5. **No payer has financial interest in environmental causation documentation.** Medicare doesn't pay less for pollution-induced COPD than genetic COPD.
6. **The Z77 environmental exposure codes are economically vestigial.** A Florida study found only $11.3 million in documented Z77-coded charges over four years statewide—not because pollution affected few people, but because clinicians have no reason to add codes that don't affect reimbursement.[27]
7. **Only egregious acute incidents generate documentation.** Chemical spills, lead poisoning clusters, asbestos exposure get documented. Chronic, diffuse environmental injury does not.

Section 4.2: Bracketed Estimate Methodology

Table 10: Environmental Exposure Direct Medical Cost Estimate

Component	Lower	Upper	Derivation
Childhood environmental	$15B	$25B	Trasande 2011[28]
Adult respiratory (air pollution)	$20B	$40B	MEPS × 15–30% EAF[29]
Cardiovascular (PM2.5)	$10B	$25B	Health Affairs 2020[30]
EDC direct medical	$5B	$15B	Trasande 2016[31]
TOTAL BRACKETED	**$50B**	**$105B**	**Midpoint: ~$75B**

Critical Methodological Note: The commonly cited $820 billion figure from NRDC represents comprehensive health *damages* using Value of Statistical Life (VSL) methodology—107,000 premature deaths × ~$10M VSL.[32] Using VSL-based figures as direct medical costs would be methodologically incorrect.

Section 4.3: CHCA Changes the Incentive Structure

ICD-10-CM includes comprehensive environmental exposure codes (Z77 series) that are currently underutilized. Under agency-decorrelated coverage with systematic government subrogation:

- Government becomes primary payer for environmentally-caused conditions
- Government has statutory subrogation interest in accurate causation documentation
- Accurate Z77 coding enables cost recovery from polluters under CERCLA, Clean Air Act, and common law
- Financial incentive for documentation creates data that current financing fails to generate

PART V: MOTOR VEHICLE AND OCCUPATIONAL INJURY COSTS

Section 5.1: Motor Vehicle Crash Costs

The National Highway Traffic Safety Administration provides authoritative data on motor vehicle crash costs.[7]

Table 11: Motor Vehicle Crash Incidence (2019)

Category	Count
Fatalities	36,500
Nonfatal Injuries	4.5 million
Damaged Vehicles	23 million
Total Crashes	14.2 million

Table 12: Motor Vehicle Economic Costs (2019)

Cost Category	Amount (Millions)	Share
TOTAL ECONOMIC COST	**$339,800**	**100%**
Property Damage	$115,300	33.9%
Market Productivity Loss	$75,500	22.2%
Medical Costs	$30,900	9.1%
Household Productivity	$30,800	9.1%

Source: NHTSA DOT HS 813 403.[7] The comprehensive cost including QALYs is $1.37 trillion.[7]

Section 5.2: Occupational Injury and Illness Costs

Table 13: Occupational Injury/Illness Cost Summary

Metric	Value	Source
Total work injury costs (2023)	$176.5 billion	NSC[4]
Economic burden (peer-reviewed)	$250 billion (2007$)	Leigh 2011[8]
Direct medical costs	~$67 billion	Leigh 2011[8]

PART VI: SUBROGATION RECOVERY FRAMEWORK

Section 6.1: Medicare Secondary Payer Program Performance

The Medicare Secondary Payer (MSP) program demonstrates that systematic government subrogation works.[34]

Table 14: Annual MSP Savings

Fiscal Year	Savings (Billions)	Source
FY2021	$9.7	CRS RL33587[34]
FY2024	$9.04	CMS MLN006903[35]
Cumulative FY2015–2021	$63 billion	CRS RL33587[34]

Section 6.2: Recovery Rates and Tort System Efficiency

Table 15: Subrogation Recovery Rates by Claim Type

Claim Type	Recovery Rate	Source
Motor vehicle accidents	62.1%	NASP[37]
Medical malpractice	Lower rate	NASP[37]
Product liability	Lower rate	NASP[37]

Critical finding: Only 53 cents of every tort dollar reaches claimants—47% goes to litigation costs and overhead.[38] Government subrogation could dramatically improve this ratio.

Section 6.3: Subrogation Recovery Framework

CHCA's subrogation model separates baseline recovery (current law operations) from incremental CHCA recovery (new authority and enhanced enforcement):

Table 16: Subrogation Recovery Framework

Category	Baseline (Current)	CHCA Increment	Post-CHCA
Motor Vehicle	~$5B	$5–8B	$10–13B
WC/Occupational (MSP + expansion)	~$9B	$4–10B	$13–19B
Environmental/Product Liability	~$1B	$1–5B	$2–6B
SUBTOTAL (Gross)	**~$15B**	**$10–23B**	**$25–38B**
Less: Administrative/Legal (20%)	—	($2–5B)	—
NET ANNUAL RECOVERY	**~$15B**	**$8–18B**	**$23–33B**

TOTAL ANNUAL RECOVERY OPPORTUNITY: $23–33 billion (baseline ~$15B continues; CHCA adds $8–18B net incremental recovery)

Section 6.4: The Accountability-Through-Recovery Principle

Systematic government subrogation ensures:

8. Immediate victim care regardless of fault determination
9. Appropriate cost allocation to responsible parties
10. Systematic deterrence of negligent behavior

Current systems fail all three objectives; CHCA succeeds on all three.

ENDNOTES

[1] Agency for Healthcare Research and Quality. "Concentration of Healthcare Expenditures." MEPS Statistical Brief NBK613741. AHRQ, 2024. Top 5% = 49.7%, top 1% = 21.7%, bottom 50% = 2.8%.

[2] Medicare Payment Advisory Commission. A Data Book. Chart 1-9, Page 11. MedPAC, July 2024. Top 5% FFS = 46%.

[3] Centers for Medicare & Medicaid Services. "NHE Fact Sheet." CY2023 data. Total NHE $4.9 trillion.

[4] National Safety Council. "Work Injury Costs." 2023. Total: $176.5 billion.

[5] CHCA Quantitative Data Repository v1.22, CHCA Baseline Summary sheet. January 2026.

[6] Yang et al. "National Economic Burden of Rare Disease." Orphanet J Rare Dis 17:163 (2022). PMID: 35414039. Direct medical = $449B.

[7] NHTSA. Economic and Societal Impact of Motor Vehicle Crashes, 2019. DOT HS 813 403. Feb 2023. Tables 1-2, 1-9, 1-14.

[8] Leigh, J. Paul. "Economic Burden of Occupational Injury." Milbank Q 89(4), 2011. PMC3250639. Total $250B; medical ~$67B.

[9] Himmelstein et al. "Health Care Administrative Costs, 2017." Ann Intern Med 172(2), 2020. PMID: 31905376. Tables 2-4.

[10] Peterson-KFF Health System Tracker. Oct 2024. 2021 OECD data.

[11] Congressional Budget Office. "Private Health Insurance Premiums." Feb 2016. Admin: individual 20%, small 16%, large 11%.

[12] Kahn et al. NEJM 349(8), 2003. Medicare/Medicaid admin 2–5%.

[13] West Health-Gallup. May 11, 2021. n=3,870, margin ±2.2 pp.

[14] Madrian, B. C. QJE 109(1), 1994. 25% turnover reduction.

[15] U.S. Treasury. State of Labor Market Competition. March 2022.

[16] Fairlie et al. J Health Econ 30(1), 2011. Business ownership 24.6%→28.0% at age 65; n=102,027.

[17] Bailey & Dave. Eastern Econ J 45(1), 2019. 3–4% SE increase.

[18] Urban Institute/RWJF. 2013. Projected 1.5 million additional SE.

[19] ACA plan design. OOP max $9,450 individual / $18,900 family (2024).

[20] Fossen & König. Small Bus Econ 49(3), 2017. 1% premium → 0.76% SE decrease.

[21] Blume-Kohout. ILR Review 77(2), 2024. SE fell during 2017–18 repeal uncertainty.

[22] Gruber & Madrian. NBER WP 8817 (2002). Uncertain coverage creates lock.

[23] BLS. Self-Employment in the United States. ~16.8 million.

[24] SBA Office of Advocacy. Small business GDP 43.5%.

[25] U.S. Treasury. Dec 2024. 70%+ net new jobs since 2019.

[26] Yeh. Fed Reserve Richmond Econ Brief 23-06 (2023). >15% job creation.

[27] Florida Z77 study. Oct 2021. $11.3M in 4 years statewide.

[28] Trasande & Liu. Health Aff 30(5), 2011. PMID: 21543421.

[29] Blanc et al. AJRCCM 199(11), 2019. EAF 13–16% (corrected from prior 15–30%).

[30] Sacks et al. Health Aff 39(12), 2020. BenMAP methodology.

[31] Attina et al. Lancet Diab Endocrinol 4(12), 2016. PMID: 27765541.

[32] NRDC. Health Costs of Air Pollution. 2025. $820B VSL-based.

[33] Minneapolis Fed. CPI 2019=255.7; 2023=304.7.

[34] CRS Report RL33587. Aug 2023. Cumulative FY2015–21 = $63B.

[35] CMS MLN006903. July 2025. FY2024 = $9.04B.

[36] Various industry sources. DOL, NAIC, Ethosrisk.

[37] NASP Healthcare Benchmarking. MV recovery 62.1%.

[38] ILR/Brattle. 2022. Tort costs $443B; claimant efficiency 53%.

[39] AFFF MDL 2873; NLC 2025. PFAS settlements $14+ billion.