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FISCAL IMPACT OF CHILDHOOD LEAD POISONING PREVENTION AND SAFE HOUSING ACT

IMPACT ON NYS AND LOCAL GOVERNMENTS

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TABLE OF CONTENTS

NEW COSTS TO THE STATE OF NEW YORK AND LOCAL GOVERNMENTS

The proposed legislation entitled the "Childhood Lead Poisoning Prevention and Safe Housing Act" ("the Act") will generate new costs for the State of New York as well as for a small number of local governments. The sections of the Act cited in the discussion below refer to the "C" print of the bill, but citations to the specific sections of current law that would be amended are also provided to facilitate review of later versions of the bill.

As clarified in the proposed "D" print of the bill, the provisions of the Act, other than eligibility for tax credits and loan funds, do not affect New York City and accordingly there are no new inspection or planning costs related to New York City.

The main costs generated by this legislation will be borne over a period of approximately five years. That is because the legislation has staggered implementation provisions with respect to owner obligations to investigate their own units for hazards and for public officials to inspect units in response to notification of a suspected hazard. Additionally, the effect of the legislation is to reach the state's announced goal to eliminate lead poisoning by the year 2010. As lead hazards are reduced in the state over time, continuing inspection and related costs will decline. The costs identified below are those estimated to reach the existing number of units with lead hazards. Thereafter a much lower expense for maintaining lead-safe housing can be expected.

COST SUMMARY

The new costs are outlined and estimated below under seven major cost categories:

A. Tracking and identification of high-risk communities and units
B. Implementation of Primary Prevention Plans
C. Response to person at risk with elevated blood lead level
D. Outreach and education
E. Administration and promulgation
F. Reporting and evaluation
G. Tax Credits

New costs will be offset by several factors, such as reduced costs of treatment, reduced costs of special education, reduction in lost lifetime earnings, and others which are discussed in Section H of this report.

Timing of Costs

The administrative costs (preparing primary treatment plans, public outreach, etc.) will be felt in the early years with the actual inspection cost (thus the tax credit) weighted toward years three through five.

Five Year Cost Allocation

	Year					
	1st	2nd	3rd	4th	5th	**Total**
Administration	$290,000	$35,000	$5,000	$5,000	$5,000	**$340,000**
Inspections	$526,100	$1,052,200	$1,578,300	$1,578,300	$526,100	**$5,261,000**
Tax Credit	$0	$915,600	$915,600	$1,373,400	$1,373,400	**$4,578,000**
Total	**$816,100**	**$2,002,800**	**$2,498,900**	**$2,956,700**	**$1,904,500**	**$10,179,000**

The table below summarizes the costs anticipated under the proposed statute.

Summary of Cost Estimates

Cost Item	Estimated Cost
A. Tracking and Identification of High-Risk Communities and Units	
1. Identify 30 Communities of Concern	$0
2. Identify High-Risk Census Tracts or Block Groups	$0
3.Statewide Registry of Children with Elevated Blood Lead	$0
4. Registration of Affected Properties	$0
B. Primary Prevention Plans	
1. Primary Prevention Plans in 30 Communities	$150,000
2. Inspections Stimulated by Primary Prevention Plans	$4,294,000
C. Response to Person at Risk	
1.Environmental Inspections	$967,000
2.Safe Work Practices	$0
D. Outreach and Education	
1.Public Education and Outreach	$75,000
2.Distribution of Literature	$25,000
3.Trainer's Manual	$15,000
E. Administration and Promulgation	
1.Promulgate and Enforce Regulations	$75,000
2.Enter Into Interagency Agreements	$0
3.Coordinate with Department of Insurance	$0
4.Designate Deputy Commissioner of Health	$0
5.Screening and Reporting Requirements	$0
6.Accreditation of Persons Performing Lead Hazard Reduction	$0
7.Enforcement	$0
8.Administration of Revolving Loan Fund	$0
F. Reporting and Evaluation	
1. Report on and Evaluate the Program	$0
2. Report to Health Committees	$0
G. Tax Credit	
1. Lead Hazard Reduction	$4,578,000
TOTAL ESTIMATED COST	**$10,179,000**

A. Tracking and Identification of High-Risk Communities and Units

1. Identify 30 Communities of Concern

Section 4 of the Act amends Public Health Law section 1370-a, subdivision 2 (a) to require the NYS DOH (the Department) to identify and designate as communities of concern the 30 municipalities in the state with the highest numbers of children identified with elevated blood lead (EBL) levels. The Department would then work with the county Health Department and local code enforcement officials to develop a plan for systematic inspection of units likely to have children ages six and under. Detailed data on the number of children with EBL levels in each municipality in the state are not available for this analysis. However, the incidence of EBL is associated with a number of other factors, including the age of the housing unit and poverty level. Using data from the Housing and Urban Development (HUD) agency, we used renter households in units built before 1970, in low-income categories (below 50% of household area median family income), with one or more children age 6 or younger to generate a preliminary list of municipalities in the state likely to have the highest number of children with elevated blood lead.

Of importance is the fact that a small number of cities (approximately 5) may have 3,000 or more total units that present a risk. An additional 10 cities may have between 1,000 and 2,000 units at risk, and the remainder is likely below 1,000.

Under the proposed legislation, the Department would use a different approach to estimating the communities of concern, in that they maintain a database of blood lead level testing data from all counties statewide. Those data include address information, and can therefore be categorized by city or town to generate a list of the top 30 communities of concern based on actual test data.

Assumptions: With the data already available, the cost of generating the above list based on actual elevated blood levels is very small, likely to be about one day of staff time.

New costs: $0 to $250.

2. Identify High Risk Census Tracts or Block Groups

Section 4.of the Act also amends section 1370-a, subdivision 2 (b) of the Public Health Law to require the Department to identify and designate as "areas of high risk" any census tract or block

group in the state in which during any single year more than 25 children have been identified with EBL levels.

Assumptions: Again, the Department maintains such data and should be able to generate such a list with minimal to no new expense. We expect that the vast majority of these additional "areas of high risk" would be located within the 30 communities of concern identified earlier. As the state currently maps children with EBL by county and zip code, they can extend their use of GIS software and address matching to analyze EBL children by census tract and block group.

New costs: $0

3. Statewide Registry of Children with Elevated Blood Lead Levels

Section 4 of the Act amends Public Health Law section 1370-a, subdivision 2(e) to require establishment of a statewide registry of children with EBL levels. The state already requires that county Health Departments submit the results of all blood lead level screenings to the state Health Department.

Assumptions: This statewide registry already exists.

New costs: $0

B. Primary Prevention Plans

Section 7 of the Act adds a new section 1377.6 to the Public Health Law to require that within the 30 communities of concern, the Department in cooperation with the local health officials and municipal officials develop a local primary prevention plan *within the highest risk affected housing* to prevent exposure to lead. The responsible officials are to consider reports of EBL in other units of the associated buildings, the age and maintenance history of the buildings, and any available data on the presence of young children from birth certificates issued by the Department.

The proposed statute requires the Department to work with local health officials and municipal officials to produce local Primary Prevention Plans that will be appropriate for each community, thus allowing the adoption of the most cost-effective approaches and maximum utilization of local private and public resources. Neighborhood organizations that already have door-to-door lead poisoning prevention strategies in place, for example, could be an important and cost-saving part of a local Primary Prevention Plan.

Assumptions: We assume that the first step would be to identify census tracts and block groups as described in section A2 of this report. Secondly, cities and towns in NYS can use their tax parcel databases to identify housing units that were built before 1970, and are renter-occupied. They could then use EBL data to attempt to further narrow their focus to particular blocks, buildings, or residences likely to present a lead risk.

Housing units in which a child testing at 10 μg/dL or higher will receive environmental inspections as described in C1 of this report below. Therefore the most high-risk units will be eliminated from the requirements in this section of the statute. Nonetheless, such EBL data will be used to identify other housing units in a community that should be explored for primary prevention.

In order to estimate the number of Census tracts that would fall into the areas of high risk category (and would by definition contain all block groups that are flagged as areas of high risk), CGR relied on its own analysis of EBL data from 1993 to 2000 in the City of Rochester. That analysis found that 12 Census tracts could be categorized as extreme risk given that 35% of lead screens resulted in EBL levels, and the tracts ranked high on six characteristics shown to be highly associated with lead poisoning by Lanphear (1998), including African-American race, property built pre-1950, low housing value, family income below 50% of median, low educational attainment among adults, and renter-occupied housing units. These 12 Census tracts (out of 83 citywide) contain approximately 9% of the city's housing units, and 67% are renter-occupied (less than 6,000 units). About 28% of those units have children under age 6 (1,643 units), and more than 90% were built before 1970 (1,500 units).

1. Primary Prevention Plans

If the community further takes into consideration the location of children with EBL results, and removes all units that have already been referred for environmental evaluation due to the presence of a child with EBL, the number of units that require inspection would fall further. Nonetheless, we assume that 1,000 units would fall under the highest risk affected housing clause of this statute, or approximately 1.25% of all occupied housing units in the City of Rochester. Applying this proportion to all 30 communities of concern identified earlier, we estimate a total of 20,000 housing

units could require additional environmental inspections as a result of the new primary prevention plan requirements. The primary cost to the government would be the process to identify these units. We estimate that this process can be done using existing data at the state and local levels, and can be done with existing staff, building on existing relationships between state and local health and housing departments or agencies. However, it is reasonable to assume some cost would be incurred for each of the thirty communities for which a primary prevention plan must be developed. We assume a cost of $5,000 per community.

New costs: $150,000

2. Inspections Stimulated by Primary Prevention Plans

The cost to government of assuring that inspections are conducted will depend upon the approach take by the local municipality. The proposed legislation does not specifically require the state or a local municipality to conduct the inspections. Section 1377.6 requires instead that the Deputy Commissioner shall require that for each area of high risk that the local officials "prepare and implement a strategy" to inspect affected properties. Accordingly, the local Primary Prevention Plan will likely require local authorities to conduct additional inspections. We assume that all anticipated inspections in the communities of concern will incur a cost and that 750 of the anticipated inspections in the remaining communities will also incur additional cost. The total number of new inspections would be about 12,300 (the estimate is based on 12,269) at a cost of $350 each.

New cost: $4,294,000

C. Response to Person At Risk with Elevated Blood Lead Level

1. Environmental Inspections

Section 7 of the Act adds a new section 1370-f to the Public Health Law that outlines requirements for the state and local authorities when a person has a confirmed EBL level. This involves conducting an environmental assessment (with cost of inspection borne by the property owner), issuing a written notice and demand for discontinuance for the condition conducive to lead poisoning, and completing a clearance examination to confirm the safety of the location after remediation.

Assumptions: These requirements mirror those already conducted by County Health Departments when a child's blood lead is above 20μg/dL (with lower trigger levels in some counties, such as 15μg/dL in Monroe County). The new statute would trigger such an approach when the child's blood lead level is above 10μg/dL everywhere in the state except New York City. Therefore, additional inspections will be done for the group of persons whose blood lead falls between 10 and 20μg/dL, but the cost of such inspections will not be incurred by the state or local government.

A far greater number of children with EBL fall in the range of 10μg/dL to 20μg/dL as compared to 20μg/dL and over. For example, the NYS DOH reports that while 415 *new* cases of children statewide (excluding NYC) were found to have blood lead levels at or above 20μg/dL in 2001, more than six times that number, 2,763, had levels between 10 and 20μg/dL.

Although recent data shows significant drops in the numbers of children with elevated blood lead level, assuming the number of children identified was as high as that in 2001, at a cost per inspection estimated at $350, the additional cost of inspection triggered by these new cases would be roundly $967,000.

New costs: $967,000

2. Safe Work Practices

Section 7 of the Act adds a new section 1373 to the Public Health Law, requiring safe work practices for activities disturbing lead-based paint in affected properties with persons at risk. The Commissioner is required to promulgate the regulations.

Assumptions: Protocols and materials regarding the most effective Lead Safe Work Practices have been adopted after years

of study by EPA, HUD and national lead-poisoning prevention groups and are readily available. Promulgation of these practices is expected to be of minimal cost to the state or local governments.

New costs: $0

D. Outreach and Education

Section 4 of the Act amends section 1370-a, subdivision 2(f) to require the state to develop and implement public education and outreach programs on lead exposure, detection, and risk reduction.

1. Public Education and Outreach

Assumptions: We estimate that nearly 50,000 housing units fall into the at-risk category in communities of concern described in section A1 of this report, and are the likely targets for public education and outreach. The state could contract out for development of an education and outreach program based on existing programs elsewhere in the country. Housing units targeted for public education could be mailed an informational packet.

Many communities currently have private and publicly funded grant activities in place, such as activities funded under the Neighborhood Preservation Companies program, which can be incorporated into the state outreach strategy.

New costs: $75,000: $50,000 to develop educational and outreach campaign, $25,000 for printing materials ($.50 per pamphlet, for 50,000 pamphlets).

2. Distribution of Literature About Childhood Lead Poisoning

Section 4 of the Act adds a new 1370-a, subdivision 3, to require the Commissioner to develop culturally and linguistically appropriate information pamphlets regarding childhood lead poisoning, the importance of testing for elevated blood lead levels, prevention of childhood lead poisoning, treatment of childhood lead poisoning, and tenants' and owners rights and responsibilities.

Assumptions: Materials regarding these topics are available from HUD, CDC, and other agencies. We do not anticipate a need for the state to generate new materials. The state may wish to modify materials to incorporate state health logos or state-specific phone numbers, etc. The state could then use existing distribution channels to make the materials available to local health units, who could then in turn use their own distribution channels to distribute

materials to health care providers and others as appropriate. New costs would be limited to printing costs, which we estimate at $.25/pamphlet, with an estimated 100,000 pamphlets to be printed.

New costs: $25,000

3. Trainer's Manual

Section 7 of the Act adds a new Public Health Law section 1373, subdivision 4 to requiring the Deputy Commissioner to establish guidelines and a trainer's manual for a "lead-safe housing awareness seminar" within 120 days of the effective date of this title.

Assumptions: HUD and the EPA both have training materials and modules that can be adapted for this use. For example, HUD has a "Welcome to the Lead Safe Housing Rule training module" and the EPA has an extensive assortment of printed materials that can be adapted by the Department. We therefore estimate a small cost associated with this requirement, primarily associated with printing costs.

New costs: $15,000

E. Administration and Promulgation

1. Promulgate and Enforce Regulations

Section 4 of the Act amends Public Health Law section 1370-a, subdivision 2 to requirethe Department to promulgate and enforce regulations necessary for implementation of all portions of this title, except where responsibility falls to the Commissioner of Housing and Community Renewal or to the Commissioner of Taxation and Finance.

Assumptions: We assume that this requirement will extend the existing authority of the Department. We also assume that the various regulations in this statute may require the addition of one full time staff person to oversee and coordinate all activities.

New costs: $75,000

2. Enter Into Interagency Agreements

Section 4 of the Act amends Public Health Law section 1370-a, subdivision 2(d) to require that the Department enter into interagency agreements to coordinate lead poisoning prevention, exposure reduction, identification and treatment activities with other federal, state, and local agencies and programs.

Section 1370-b under existing Title X of the Public Health Law establishes an advisory council on lead poisoning prevention.

The council shall have the following powers and duties:

(a) To develop a comprehensive statewide plan to prevent lead poisoning and to minimize the risk of human exposure to lead;

(b) To coordinate the activities of its member agencies with respect to environmental lead policy and the statewide plan;

(c) To recommend the adoption of policies with regard to the detection and elimination of lead hazards in the environment;

(d) To recommend the adoption of policies with regard to the identification and management of children with elevated lead levels;

(e) To recommend the adoption of policies with regard to education and outreach strategies related to lead exposure, detection, and risk reduction;

(f) To comment on regulations of the department under this title when the council deems appropriate;

(g) To make recommendations to ensure the qualifications of persons performing inspection and abatement of lead through a system of licensure and certification or otherwise;

(h) To recommend strategies for funding the lead poisoning prevention program, including but not limited to ways to enhance the funding of screening through insurance coverage and other means, and ways to financially assist property owners in abating environmental lead, such as tax credits, loan funds, and other approaches; and

(i) To report on or before January first of each year to the governor and the legislature concerning the development and implementation of the statewide plan and operation of the program, together with recommendations it deems necessary.

Assumptions: With this advisory council already established, we estimate no new costs as a result of this provision.

New costs: $0

3. Coordinate with Department of Insurance

Section 4 of the Act amends Public Health Law section 1370-a, subdivision 2(g) to require. requires that the Department of Health coordinate with the Department of Insurance on selected sections of the Insurance Law.

Assumptions: The Departments already coordinate on various sections of state law, so we assume this will not result in an increased cost.

New costs: $0

4. Designate Deputy Commissioner of Health Responsible for This Title

Section 4 of the Act amends Public Health Law section 1370-a, subdivision 5 to require the Commissioner to designate a Deputy Commissioner of Health responsible for fulfilling the objectives of this title.

Assumptions: We anticipate that this assignment will be made to a current Deputy Commissioner, likely the individual under whom the current state lead program falls, and will not generate any new costs.

New costs: $0

5. Screening and Reporting Requirements Under Medicaid and Child Health Plus Contracts

Section 6 of the Act adds a new Public Health Law section 1370-c, subdifivision 6 to require the Department to include screening and reporting requirements in its contracts for services under the Medicaid and Child Health Plus programs, including compliance targets and appropriate penalties or sanctions if targets are not achieved.

Assumptions: This will require some modification to contracts during the typical renewal process, but is not expected to generate new costs.

New costs: $0

6. Accreditation of Persons Performing Lead Hazard Reduction

Section 7 of the Act revises section 1375 of the Public Health Law to add subdivisions 1 and 2 requiring that persons performing lead hazard reduction activities or inspections must be accredited under the applicable US EPA certification, certification by a state or tribal program, or regulations that may be adopted by the Commissioner.

Assumptions: The proposed legislation specifically authorizes the use of existing EPA certification regulations and procedures, and merely offers the state accreditation authorization as an option in the event the state wishes to adopt greater safeguards. Accordingly, the legislation will have no additional cost effect with respect to accreditation standards and training unless the state ultimately chooses to pursue that option.

New costs: $0

7. Enforcement

Section 7 of the Act adds a new section 1379 to the Public Health Law that outlines enforcement requirements for the Department, including issuance of written notice and demand, placement of a lien on a property, and issuance of a summons. The section also describes reporting of enforcement actions through a detailed annual report.

Assumptions: We assume this requirement can be absorbed by existing staff, as well as by the new full-time hire mentioned above in section E1 of this report.

New costs: $0

8. Administration of Residential Property Lead Abatement Revolving Loan Fund

Section 11 of the Act adds a new Section 99-p to the state finance law to add a residential property lead abatement revolving loan fund that will consist of proceeds from sale of bonds pursuant to this section, and other sums that the state may appropriate. Funds will be provided at the discretion of the deputy commissioner of health to the owners of affected properties. The Comptroller shall contract for the administration and disbursement of funding.

Assumptions: We assume that the state will shift the burden of borrowing onto the borrower through a low interest rate for repayment. We further assume that the state will assess a small fee to cover any administrative costs.

New costs: $0

F. Reporting and Evaluation

1. Report on and Evaluate the Program

Section 4 of the Act amends section 1370-a, subdivision 4 of the Public Health Law to require the Department to report on and evaluate the program within three months of the close of the fiscal year. The Department currently releases a report on lead exposure status annually. The new statute will require that the report be

released in a more timely fashion, and that it be more comprehensive than past reports.

Assumptions: As the state already publishes an annual report, we assume the new requirements, though more comprehensive, can be fulfilled with a combination of current staff and the addition of one full time staff person as described under section E1 of this report.

New costs: $0

2. Report to Health Committees

Section 4 of the Act amends section 1370-a, subdivision 7 of the Public Health Law to require requires the Department to report to the Health committees of the Senate and Assembly and make publicly available a report on screening rates. The state currently reports on screening rates in its annual report on Lead Exposure Status. The new statute will expand the screening rate information reported, but is not expected to substantially increase costs.

Assumptions: As the state currently reports on screening rates in its annual report, we assume this requirement will add no new costs.

New costs: $0

G. Tax Credit

1. Lead Hazard Reduction

Section 9 of the Act amends section 210 of the tax law by adding a new subdivision 39, which introduces a lead hazard reduction tax credit. The tax credit provides for a maximum of $2,500 per affected property to achieve lead-free or lead-contained status, and provides a maximum of $1,250 to achieve lead-stabilized status. The tax credit is available to any taxpayer who conducts activities necessary to bring any affected property into lead-free or lead-contained status, if (1) the activities are performed by a properly accredited contractor, (2) the affected property was constructed before 1970, (3) the taxpayer has paid for the activities, and (4) the taxpayer has written certification from an inspector that the activities were completed in accordance with necessary requirements.

In addition, the tax credit is restricted to rental units with a monthly rental less than 120% of the federally-determined "fair market rent" and owner-occupied units occupied by individuals

with income below 120% median family income. Eligibility is also dependent on the dwelling being occupied by either a pregnant woman or children below the age of six.

Assumptions: For renter-occupied units, we begin with the assumption that while all units built before 1970 are eligible, targeting of high-risk units will likely generate the most interest in use of the tax credit.

- We assume that in communities of concern there will be a 90% chance of a dwelling being inspected for lead contamination, since the primary prevention plan will lead to heightened awareness of the issue. We assume that units in upstate communities outside the communities of concern will have a much lower rate of identification (15%), and in NYC the rate will be an estimated 25% because of the presence of a local law regarding lead poisoning prevention.
- The probability of landlords taking advantage of the credit will be 33%; the probability for owners is assumed to be 10%.
- In 2001, 69.1% of housing units in NYS outside NYC that underwent environmental assessments due to the presence of a child with EBL were found to have lead hazards. We assume that a much lower proportion of homes inspected under the new regulations will be shown to have lead hazards, since they do not necessarily house a child with EBL. For the purpose of this analysis, we assume that one-half that amount, or 35% of inspected homes will present a lead hazard.
- It is difficult to estimate the proportion of owners who will take advantage of the tax credit. It is likely that many will take the one-day EPA training course to learn to do the work themselves, rather than pay a certified contractor, as is required to be eligible for the tax credit. We assume that one-third (33%) of owners will use the tax credit.
- We then include the remaining renter-occupied housing units built before 1970, and apply the same assumptions, but at different rates. For example, we assume that fewer of these units will be likely to have a lead hazard (15%), partly because this group includes newer properties (1950-1969) which are less likely to have lead-based paint than those built before 1950, and partly because

these units include occupants with higher incomes, may be in better general condition, and may be less likely to have deteriorating paint. We also assume that the proportion of owners of renter-occupied housing who are likely to pursue and use the credit is lower among this group, because fewer of these properties house a young child, and because these properties will not be as heavily targeted for education and inspection under the statute. Based on these assumptions, we calculate that approximately 12,000 additional tax credits will be exercised.

- For owner-occupied units, we begin with the total number of units statewide built before 1970, and assume that 10% of these will be inspected for lead hazards as initiated by the owner. Of these, we assume that 15% will have a lead hazard, and of those, 10% of owners will exercise the tax credit.

  Among the units for which we estimate an owner will use a credit, we assume that 85% will use the $1,250 credit since the total cost of making a unit lead-stabilized can be substantially lower than the total cost of making a unit lead-free, and the remaining 15% will use the $2.500 credit.

Total new costs over five years: $10,179,000.

By virtue of the need to "ramp up" implementation, as well as the specific implementation requirements of PHL §1377 that have delayed implementation (the owner requirements for monitoring their own properties and the obligation of public officials to respond to notices of potential hazards) the inspection related most of the costs will not all occur in the first year following bill passage. There will be increased inspection costs in years 1 and 2 related to the lower trigger for EBL intervention inspections, but inspection cost will be the highest in years 3 and 4 and tapering down in year 5.

Costs may be spread over the first five years as follows, reflecting both the higher allocations of start-up costs with respect to total of $340,000 in new administrative obligations (developing primary prevention plans, developing regulations, administrative guidance and training materials) to years 1 and 2, but with the largest allocation of inspection-related costs to years 3 and 4. Tax credit costs lag the inspections.

Five Year Cost Allocation

	Year					
	1st	2nd	3rd	4th	5th	**Total**
Administration	$290,000	$35,000	$5,000	$5,000	$5,000	**$340,000**
Inspections	$526,100	$1,052,200	$1,578,300	$1,578,300	$526,100	**$5,261,000**
Tax Credit	$0	$915,600	$915,600	$1,373,400	$1,373,400	**$4,578,000**
Total	**$816,100**	**$2,002,800**	**$2,498,900**	**$2,956,700**	**$1,904,500**	**$10,179,000**

Additional tables of findings and assumptions follow.

Estimated Cost of Lead Hazard Reduction Tax Credit

	NYC	30 Communities of Concern (CC)	Upstate, Non CC	Total Statewide
A. High-Risk Renter-Occupied Units (pre 1950)	1,073,802	220,136	283,655	**1,577,593**
Units with child under age 6	49,917	10,107	13,023	**73,047**
Adjustment for presence of pregnant woman	54,908	11,118	14,325	**80,351**
Units under 120% of fair market rent	48,044	8,516	10,973	**67,533**
Units Likely to Be Inspected/certified	12,011	7,664	1,646	**21,321**
Units Likely to Have Lead Hazard	4,204	2,683	576	**7,462**
Units Where Credit Used	1,387	885	190	**2,463**
B. All Other Renter-Occupied Units (1950-1970)	646,626	110,704	218,138	**975,468**
Units with child under age 6	30,059	5,083	10,015	**45,157**
Adjustment for presence of pregnant woman	33,065	5,591	11,017	**49,673**
Units under 120% of fair market rent	28,931	4,283	8,439	**41,653**
Units Likely to Be Inspected/certified	7,233	3,854	1,266	**12,353**
Units Likely to Have Lead Hazard	1,085	578	190	**1,853**
Units Where Credit Used	358	191	63	**611**
C. Owner-Occupied Units (pre-1970)**	769,710		1,926,344	**2,696,054**
Units with child under age 6	38,401		119,277	**157,678**
Units under 120% of median household income	16,858		56,851	**73,709**
Units Likely to Be Inspected/certified	1,686		5,685	**7,371**
Units Likely to Have Lead Hazard	253		853	**1,106**
Proportion of Owners Using Credit	25		85	**111**
D. Cost of Owners Using Credit				
85% taking $1,250 credit	$1,881,225	$1,143,294	$359,177	**$3,383,696**
15% taking $2,500 credit	$663,962	$403,516	$126,768	**$1,194,246**
TOTAL TAX CREDIT IMPACT	$2,545,187	$1,546,810	$485,945	**$4,577,942**

NOTE: Owner-occupied units are not treated differently in the communities of concern. These are included in "Upstate--not CC".

Assumptions

	Owners	Renters
Share <120% of median household income (owners)		
New York City	38%	n/a
Rest of state	47%	n/a
Families without children have higher average median family income than families w/ children: We increase the number of eligible participants accordingly.		
New York City	117%	n/a
Rest of state	102%	n/a
Share <120% of med household income (owners): Adjusted upward to recognize larger share of families with children under 120% of median household income		
New York City	44%	n/a
Rest of state	48%	n/a
Share of rental housing units below 120% of HUD Fair Market Rent		
New York City	n/a	87%
Rest of state	n/a	77%
Share of dwelling units with children under age six		
New York City	5%	5%
Rest of state	6%	5%
Adjustment for presence of pregnant woman	10%	10%
Share of units inspected		
New York City	10%	25%
Rest of state	10%	15%
Communities of concern	10%	90%
Share of units inspected w/ lead hazard		
New York City (high risk)	n/a	15%
Rest of state (high risk)	n/a	15%
New York City	15%	35%
Rest of state	15%	35%
Tax Credit		
CREDIT: Lead free or lead contained	$2,500	
CREDIT: Lead stabilized	$1,250	
Share using credit		
New York City	10%	33%
Rest of state	10%	33%
Share of tax credits as lead free/contained	85%	
Share of tax credits as lead stabilized	15%	
Inspections Required (NYC is not covered)		
All in communities of concern	11,519	
Additional required in other Upstate communities	750	
Total inspections required	**12,269**	
Inspections triggered by elevated EBL among children screened	2,763	
Cost of inspection	$350	

Sources: Census

HCT8. TENURE BY HOUSEHOLD TYPE AND PRESENCE AND AGE OF OWN CHILDREN [53] - Universe: Occupied housing units
HCT21. TENURE BY YEAR STRUCTURE BUILT [21] - Universe: Occupied housing units
HCT21. TENURE BY YEAR STRUCTURE BUILT [21] - Universe: Occupied housing units
HCT35. TENURE BY HOUSEHOLD INCOME IN 1999 [25] - Universe: Occupied housing units
HCT35. TENURE BY HOUSEHOLD INCOME IN 1999 [25] - Universe: Occupied housing units
HCT36. MEDIAN HOUSEHOLD INCOME IN 1999 (DOLLARS) BY TENURE [3] - Universe: Occupied housing units
PCT122. MEDIAN FAMILY INCOME IN 1999 (DOLLARS) BY PRESENCE OF OWN CHILDREN UNDER 18 YEARS [3] - Universe: Fam

H. Cost Savings

Prevention of lead poisoning can save New York State money over time in terms of special education costs, avoided direct treatment costs, and lifetime earnings for these children. Estimates for these three items are outlined below. This analysis is admittedly speculative. It is impossible to perfectly forecast the benefit of preventing lead poisoning. CGR has gathered the best information at its disposal for the purpose of analyzing the benefits of lead hazard reduction. We note that results such as these are heavily driven by the underlying assumptions.

1. Special Education

Lead poisoning has been shown in medical research to have a negative impact on children's neurobehavioral functioning, and is believed to generate a need for special education. Schwartz (1994) estimated that 20% of children with EBL of 25μg/dL or higher need three years of additional special education. The table below shows that with 505 children with EBL of 20μg/dL or higher, the estimated cost of three years of special education is over $2.5 million. These estimates may be slightly high because we include children with EBL of 20μg/dL and higher instead of 25μg/dL and higher. However, we have not inflated the total avoided cost, which in 2004 dollars would be 6.1% higher (based on current price index for educational services), or nearly $2.7 million.

Avoided Special Education Costs

Children testing at 20 ug/dL+ (NYS exc. NYC) 2001	505
20% will need special education[(a)]	101
One year of special education in 2001[(b)]	$8,304
Three years of special education	$24,912
Total avoided cost	$2,516,112

[(a)] Schwartz (1994)

[(b)] NYSED: "A Report to the Governor and the Legislature on the Educational Status of the State's Schools," July 2003

2. Avoided Direct Treatment Costs

The majority of treatment for children found to be lead poisoned is paid for through Medicaid, of which NYS pays 25%, and local governments pay 25% of the cost. Treatment for children with EBL between 10 and 19μg/dL is relatively modest, including costs of one lab test and one physician visit. For more severely poisoned children, costs can include repeated testing and more extensive follow up physician visits (8 are assumed by Kemper), as well as

Avoided Direct Treatment Costs

	Children	Cost of follow up treatment per child[(a)]	Total cost
10-19 ug/dL (NYS exc. NYC) 2001	4,753	$56	$265,930
20 ug/dL+ (NYS exc. NYC) 2001	505	$783	$395,213
Total Children with EBL	5,258		$661,143

[(a)] Kemper (1998)

the cost of environmental investigation (assumed to be $335 by Kemper).

These assumptions applied to the number of children with EBL in NYS outside of NYC in 2001 would generate a cost of over $600,000. This estimate is conservative for three reasons:

1) We have not broken out children over 20 µg/dL who may be at very high levels, which would generate even higher costs of follow-up treatment.

2) We have not trended the data forward to 2004. The current price index for medical care would increase costs between 2001 and 2004 by 13.7%, bringing the avoided direct treatment costs to $751,720.

3) We have run the estimate only for the number of children known to have EBL in 2001. While EBL trends have declined in recent years, the additional education and outreach components of the statute could generate higher screening rates, and could therefore identify more children with EBL.

3. Lifetime Earning Potential

As mentioned earlier, lead poisoning can lead to compromised neurobehavioral systems, and can lower IQ, which in turn can lead to reduced income over a person's lifetime. Gross (2002) estimates that the earning loss for each IQ point lost is $3,720.

Avoided Lifetime Earnings Losses

	Children	Average Lost IQ points[(a)]	Earnings loss/ IQ point[(a)]	Total earnings loss	NYS Income Tax (5%)
10-19 ug/dL (NYS exc. NYC) 2001	4,753	10	$3,720	$176,811,600	$8,840,580
20 ug/dL+ (NYS exc. NYC) 2001	505	20	$3,720	$37,572,000	$1,878,600
Total	5,258			$214,383,600	$10,719,180

[(a)] Gross (2002)

Applying this to the number of children with EBL in NYS (exc. NYC) results in an estimated $214 million in earnings losses. With a NYS tax rate of approximately 5%, this translates into over $10 million in lost revenue to the state of NY.

Other Potential Savings

Other savings could occur in terms of juvenile justice savings costs, estimated by some to be 10% attributable to lead poisoning. Similarly, to the degree that juvenile delinquency attributable to lead poisoning carries through to adulthood, some criminal justice costs could be reduced if lead hazards are mitigated. Other benefits could accrue from long term effects of lead poisoning such as hypertension and osteoporosis, from neonatal mortality, and from avoided legal liability of municipalities. These items are not able to be quantified for the purpose of this report.