Transferable Tax Credits in Missouri: An Analytical Review

Paul Rothstein and Nathan Wineinger

In 2005, Missouri had 53 legally authorized tax credit programs. In this paper, the authors assemble basic information on all of these programs and further analyze the six largest (by tax credits issued) that include freely transferable credits. Their analysis focuses on the institutional features of these programs, the kinds of market failures or disparities they may address, and whether the design of each program is consistent with its economic rationale. The authors also consider whether the evaluation of each program by the state is consistent with its economic rationale. They conclude with a brief discussion of the transactions prices for the credits on which they have data and whether making the tax credits refundable as well as transferable could reduce the transactions costs associated with these programs. (JEL D61, H71, R58)

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In 2005, the state of Missouri had 53 legally authorized tax credit programs. At least 32 (and at most 38) actually issued credits in that year. The value of the credits issued was at least $357 million dollars. This is a large number of programs, and the amount of tax revenue forgone is significant. The revenue is only a modest share of total state general revenue, however, about 5 percent.

An interesting feature of many Missouri tax credits is that they are to some degree transferable. Transferability allows an entity that has more tax credits than tax liability to sell what he or she cannot use. It therefore makes the credit useful to entities that have little or no state tax liability, so tax policy becomes a closer substitute for expenditure policy. Transferability also allows entities that receive multiyear credits for capital projects to sell the credits and obtain the financing they need. On the other hand, a $1 tax credit does not sell for $1, but the credit costs the taxpayers of Missouri that amount when it is redeemed. Transferability therefore adds an extra dimension of costs and benefits to a tax credit.

Of the 53 tax credit programs mentioned above, 30 have credits that were officially designated as transferable (57 percent); and of the 32 programs we know actually issued credits in 2005, 17 issued transferable credits (53 percent). Transferability does not necessarily mean that one can sell the credits on e-Bay to the highest bidder, however. The state classifies tax credits as transferable or not, but the degree of transferability can be determined only by reading the authorizing legislation. Because it would not be practical to examine all of these programs, we focus mostly on the six largest programs (by value of credits issued in 2005) that issued what we consider to be "freely" transferable credits.

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The central question in which we are interested is whether each program is good public policy. We take this question to mean, in the broadest possible terms, is there something inefficient or unfair about the outcomes that would result if the program did not exist? We provide a general discussion of this question for each of the six largest tax credit programs (by number of credits issued) that have freely transferable credits. In doing this, we draw on current research in local public-sector economics and basic economic principles. Given the difficulty of the question and the limited amount of information available about these programs, however, we decided not to overly simplify matters just to provide "yes" or "no" answers.

We begin our analysis by identifying and describing the six largest programs. We then examine the way these programs are evaluated by the Missouri Department of Economic Development (DED), which has the formal responsibility for reviewing them. A necessary condition for good public policy is strong and regular administrative review. It is therefore appropriate to consider how these reviews help analyze the policies themselves. We also consider three recent reviews of the programs that were not done by DED.

We then turn to our basic question. If there is something inefficient about the outcomes that would occur or if growth would be slower if a program did not exist, then we should be able to identify a market failure that the program addresses. If there is something unfair about the outcomes that would occur if a program did not exist, then we should be able to identify the disparities or inequities that the program addresses. Thus, our basic question leads us to ask whether the program in question addresses some kind of market failure or corrects disparities or inequities. Furthermore, the answers to these questions provide some insight into how the program should be structured, how its key parameters should be chosen, and what variables should be measured to evaluate it. One can quantify the impact of a program in any number of ways (jobs created, services delivered, output produced, etc.). One cannot draw meaningful conclusions from these numbers unless the rationale for the program is clear.

In our conversations with various officials, we found general dissatisfaction with the fact that DED evaluates every program as if its purpose were economic development. This is DED's job, however, so the criticism is not really of DED but its mandate. In doing what is expected of them, they ignore the distinctions between correcting market failures, reducing disparities, and promoting economic development. These are different goals, they imply different structural features for the programs, and they require the measurement of somewhat different variables for proper program evaluation. In many cases, DED's approach forces a stark mismatch between their analysis and the analysis suggested by economic theory.

An additional matter for concern is simply how little analysis is actually being done. DED tends to produce lists of raw information about the impact of each program. In particular, they make no attempt to produce a single, bottom-line number of all the *tangible* benefits and costs for each program. By tangible program benefits and costs, we mean simply those impacts that can be plausibly converted into dollars and cents. Failing to quantify these impacts (to the greatest extent possible) is an enormous problem. There are always important *intangible* benefits and costs, as well—the highly subjective aspects of programs that preserve state history, reduce poverty, and promote opportunity, and which may also interfere with property rights or reduce incentives to work. Concrete information about tangible benefits and costs is essential for having a rational debate over these intangible benefits and costs.

The next sections provide preliminary information about the programs, discuss the program evaluations done by DED and others, present our analysis of the programs, and then consider briefly whether making the tax credits refundable in addition to transferable would improve their cost effectiveness.

AN OVERVIEW OF MISSOURI TAX CREDIT PROGRAMS

We begin our analysis of Missouri transferable tax credit programs by placing them in the larger context of all Missouri tax credit programs and the size of Missouri's government. First, tax credit programs are a popular policy tool in Missouri and most tax credits are in fact transferable. The credits cause the state to forgo a significant amount of revenue in absolute terms. They cause just a modest loss as a share of all general revenue, though.

Lists of the tax credit programs in any year are available from two sources. The better-known is form MO-TC, which is issued by the Missouri Department of Revenue (DOR). This form lists the tax credits that DOR has some role in administering (44 in all).

A second list of tax credits appears as part of the budget instructions issued to Missouri's governmental departments by the Office of Administration. This list includes tax credits that DOR has no role in administering, but it also includes other kinds of tax preferences.[1]

By using these lists and making inquiries at the relevant government agencies, we developed a spreadsheet with 53 tax credit programs for 2005. (See the appendix.) We have complete information for almost every program, but there are a few key omissions.

We regard the value of tax credits issued under a particular program in a given year as a good measure of the "importance" of the program in that year. This number reflects economic demand for the credits, which is the quantity (in dollars) that people want to acquire on existing terms.[2] We also say that a program is "active" in a given year if it issued any credits at all.

A brief glance at the appendix shows that, in 2005, many programs were inactive.[3] Thus, the total number of programs is not really a good indicator of the aggregate importance of tax credits in Missouri. A more careful review of the data gives the following basic results:

- Between 32 and 38 tax credit programs were active in 2005. We cannot state the exact number because of the lack of data for six programs.
- The value of credits issued by the 32 active programs for which we have data was about $357 million dollars.
- Of these 32 programs, 17 issued credits designated as "transferable."[4]
- The value of the credits issued by these 17 programs was about $266 million dollars. This is 74 percent of the total value of the credits issued by the 32 active programs for which we have data.[5]

On the one hand, $357 million is a significant sum. On the other, in 2005, the Missouri state government reported about $6.933 billion in general revenue.[6] If the revenues forgone from the 32 programs could have been collected without changing any other figures, general revenue would have been about 5 percent higher. Gathering this revenue would not have increased Missouri's ranking of 42nd among U.S. states in terms of tax revenue per capita.[7]

MISSOURI TRANSFERABLE TAX CREDIT PROGRAMS

In this section, we explain our selection of the six transferable tax credit programs, which we examine in detail. We find that all of these programs are primarily administered by the DED and appear on form MO-TC.

1 The list is available at www.oa.mo.gov/bp/budget.htm ("Attachment 8").

2 Strictly speaking, this is true only if the amount actually issued is strictly less than the amount that *could have been issued* in that year. This was generally, but not always, the case.

3 Zeros in the spreadsheet are the actual values. Missing data is indicated by "N/A."

4 This does not mean the same thing in all cases, however. Two important programs, the Low Income Housing Tax Credit Program and the Certified Capital Companies Program, issue transferable credits that are not "freely" transferable. We will discuss this further later in the paper.

5 If we exclude credits issued under the Low Income Housing Tax Credits Program and the Certified Capital Companies Program, we still find that 47 percent of all credits issued are transferable.

6 This is revenue apart from the earnings of utilities and certain other operations.

7 The state ranking is for 2004, the most recent year for which the data is available; see The Tax Foundation, www.taxfoundation.org/. These figures do not include credits issued by the six programs for which we do not have data.

Table 1

Tax Credit Programs Issuing Over $5 Million in Credits (FY 2005)

Tax credit program	Transferable	Amount issued
Missouri Low Income Housing Tax Credit	Yes	$83,477,412
Historic Preservation Tax Credit Program	**Yes**	**80,213,374**
Enterprise Zone Tax Benefit Program	No	39,066,023
Infrastructure Tax Credit Program	**Yes**	**28,964,274**
Brownfield Redevelopment Program (remediation)	**Yes**	**14,808,297**
Certified Capital Companies Program (CAPCO)	Yes	14,000,000
Neighborhood Assistance Tax Credit Program	No	11,263,385
Missouri Health Insurance Pool	No	10,015,203
Affordable Housing Assistance Tax Credit Program	**Yes**	**9,133,829**
New and Expanded Business Facility Credit	**Yes**	**8,779,797**
Missouri Business Use Incentives for Large-Scale Development (BUILD)	No	8,419,707
Examination Fee Tax Credits	No	7,576,530
Missouri Property and Casualty Guaranty Association	No	7,227,710
Neighborhood Preservation Tax Credit	**Yes**	**6,784,310**

NOTE: Bold typeface indicates the six programs with freely transferable credits.

Table 1 comes from data in the appendix. We sorted the data by the amount of tax credits issued and extracted those programs issuing more than $5 million in credits. This gives us 14 programs.

Of the 14, eight are designated as "transferable." This does not mean the same thing in all cases, however. In particular, two of the eight programs are subject to special restrictions. For example, the Low Income Housing Tax Credit Program follows federal rules. These require an entity using the credit to have an ownership interest in a housing project. Thus, it is not enough just to have Missouri tax liability. One cannot simply auction the credits to the highest bidder.

Similarly, the Certified Capital Companies Program follows rules specified by the DED: Rule 4 CSR 80-7.040(G) states that tax credits may be sold only to insurance companies. Again, one cannot simply sell the credits to the highest bidder.

In contrast, the statutes for the remaining six tax credits define relatively free markets for those credits. These six transferable tax credit programs are indicated in bold in Table 1, and they are the focus of our analysis.

BRIEF DESCRIPTIONS OF THE SIX PROGRAMS[8]

In this section we briefly describe the six programs: We give a short statement of (i) what each credit is for, (ii) whether the credit is awarded at the discretion of the DED or is an entitlement to any entity that meets the statutory criteria, (iii) the taxes against which it can be applied, (iv) whether there are carry-back and carry-forward provisions, (v) and any special statutory language about transferability.

Historic Preservation Tax Credit Program

- The credit is given for 25 percent of the qualifying expenses incurred in the rehabilitation of an approved historic structure. The total costs of the rehabilitation must be more than half of the acquisition cost of the property.
- The credit is an entitlement.

[8] This information comes from DED (2005 and 2006) and the relevant statutes.

- The credits can be applied to the following taxes: income (excluding withholding), bank, insurance premium, and other financial institution.
- There is a carry-back of 3 years and a carry-forward of 10 years.[9]
- By statute the credits cannot be issued to nonprofit entities, but they can buy and sell them.[10]

Infrastructure Tax Credit Program

- The credit is equal to 50 percent of a contribution made to local governments or state agencies to finance the development of publicly owned essential public purpose infrastructure such as water, sewer, gas, electrical systems, streets, bridges, rail spurs, storm water drainage, and other projects.
- The credit is discretionary.
- The credits can be applied to the following taxes: income (excluding withholding), corporate franchise, bank, and insurance premium.
- There is a carry-forward of 5 years.
- By statute, the credits must transact at between 75 and 100 percent per dollar of credit. There is also an explicit stipulation that the seller of the credits must report the payment received from the buyer as taxable income and that the buyer must recognize the difference between the face value and his payment to the seller as taxable income.

Brownfield Redevelopment Tax Credit Program (Remediation)

- The tax credit is worth up to 100 percent of the costs of cleaning contaminated commercial or industrial sites that have been underutilized for at least 3 years. The project must retain 25 jobs or create 10 new jobs; if the property is privately owned, a city or county government must endorse the project; and all projects must be accepted into the state's Voluntary Cleanup Program.
- The credit is discretionary.
- The credits can be applied to the following taxes: income (excluding withholding), corporate franchise, bank, insurance premium, and other financial institution.
- There is a carry-forward of 20 years.

Affordable Housing Assistance Tax Credit Program

- The credit is equal to 55 percent of a contribution made to a nonprofit housing organization. The contribution must be used for the building, procurement, rehabilitation, and in some cases basic operating expenses of a housing organization that provides certain types of housing, either affordable (targeted toward persons below 50 percent of median income) or market rate (targeted toward "rebuilding communities" as defined by statute).
- The credit is discretionary.
- The credits can be applied to the following taxes: income, corporate franchise, bank, insurance premium, other financial institution, and express company.
- There is a carry-forward of 10 years.

New and Expanded Business Facility Tax Credit Program

- Tax credits are awarded during a 10-year window based on capital invested in new facilities and the creation of new jobs. Facilities must belong to certain industries, including manufacturing, research and development, and computer-related services. The credit amount varies depending on whether the facility is owned by an existing Missouri company or a new company and whether the facility is in a distressed area or not. The program is being phased out, but

[9] A carry-back of three years allows a taxpayer whose tax credits exceed his current tax liability to use the excess to offset tax liability from the three previous years. This presumably generates a refund from the state if the taxpayer is not in arrears.

[10] We confirmed this last point with the DED.

credits could potentially be issued through 2014.[11]

- The credit is an entitlement.
- The credits can be applied to the following taxes: income (excluding withholding), insurance premium, and insurance company retaliatory.
- There is no carry-forward for the recipient (but see the next bullet point).
- Regarding transferability, the statutory language is similar to that for the infrastructure tax credit program. The credits must transact at between 75 percent and 100 percent per dollar of credit. There is an explicit stipulation that the seller of the credits must report the payment received from the buyer as taxable income, and the buyer must recognize the difference between the face value and his payment as taxable income.

Neighborhood Preservation Tax Credit Program

- This tax credit is worth a minimum of 15 percent and maximum of 35 percent of eligible expenses for new construction or rehabilitation of owner-occupied homes incurred in communities with median household incomes that are low for their metropolitan statistical area.
- The credit is an entitlement.
- The credits can be applied to the following taxes: income (excluding withholding), corporate franchise, bank, insurance premium, and other financial institution.
- There is a carry-back of 3 years and a carry-forward of 5 years.
- There is an explicit statement that the credit cannot be claimed in addition to any other state tax credits.

[11] Only facilities that applied for the credit on or before December 16, 2004, and began operations on or before that date are eligible. In each year in the 10-year window in which at least $100,000 in new capital is invested (or $1,000,000 in replacement facilities) and two new jobs are created (25 for office jobs), an existing Missouri company receives a credit of $100 ($150 in distressed areas) per new job and a new Missouri company a credit of $75 ($125 in distressed areas) per new job.

THE SCOPE OF THE DED'S PROGRAM EVALUATIONS

The tax credit analysis form issued by the Missouri Office of Administration states the following:

> Per 33.282.2 RSMo, each department authorized to offer deductions, exemptions, credits or other tax preferences shall submit the estimated amount of such tax expenditures for the fiscal year beginning July 1st of the following year and a cost/benefit analysis of such tax expenditures for the preceding fiscal year.

Pursuant to this, the DED performs an annual analysis of the tax credits that it administers.

Table 2 compiles DED data on *fiscal* costs and benefits for our six programs for 3 consecutive years. In other words, all of the reported costs and benefits, whether direct, indirect, current-year, or long-run, are simply *state tax revenues* that are lost or gained as a result of the programs.

Four features of the data are worth noting:

- The data on fiscal costs and benefits in the 2005 report is more complete than that in the previous two reports.
- The direct cost, total cost, and tax credits redeemed for each program are generally all equal. In other words, the DED measures program costs by the tax credits redeemed. This may be generally reasonable, but over the long run economic development credits (such as the infrastructure and business facility credits) create additional fiscal costs, for example, through demand for additional government services.
- Using FY 2005 data, DED forecasts fiscal net losses in the long run (from the credits granted in 2005) for the tax credit programs for historic preservation, affordable housing, and neighborhood preservation. These programs also generate net losses in the short run.
- Two additional programs, for infrastructure and brownfield redevelopment, generate net losses in the short run (but net benefits

Table 2

Fiscal (Tax Revenue) Costs and Benefits from Each Program

Tax credit program FY 2003	Issued	Redeemed (also direct cost)	Total cost	Direct benefit	Total benefit	Total net benefit (2003)	Benefit-cost ratio (5-year)
Historic Preservation	89,214,177	42,979,369	42,979,369	NA	25,324,223	–17,655,146	1.25 to 1
Infrastructure	11,227,302	10,250,949	10,250,949	NA	395,877	–9,855,072	0.04 to 1
Brownfield Redevelopment (remediation)	15,481,014	6,817,545	6,817,545	NA	18,972,677	12,155,132	5.65 to 1
Affordable Housing Assistance	6,223,933	7,811,713	7,811,713	NA	1,904,063	–5,907,650	0.49 to 1
New and Expanded Business Facility	9,168,145	7,890,982	7,890,982	NA	38,187,629	30,296,647	7.95 to 1
Neighborhood Preservation	5,085,754	3,975,948	3,975,948	NA	1,365,838	–2,610,110	0.68 to 1

Tax credit program FY 2004	Issued	Redeemed (also direct cost)	Total cost	Direct benefit	Total benefit	Total net benefit (2004)	Benefit-cost ratio (5-year)
Historic Preservation	75,692,322	66,089,980*	67,408,896	8,822,146	15,291,920	–52,116,976	NA
Infrastructure	39,401,435	10,020,578	5,841,779**	22,250,124	37,739,094	31,897,315	NA
Brownfield Redevelopment (remediation)	4,250,346	16,101,975*	16,021,091**	1,181,802	1,849,955	–14,171,136	NA
Affordable Housing Assistance	10,378,534	7,554,503	7,793,500	793,546	1,553,279	–6,240,221	NA
New and Expanded Business Facility	8,702,349	7,826,417*	5,812,636**	10,214,799	16,213,525	10,400,889	NA
Neighborhood Preservation	4,440,206	4,001,293*	4,216,773	491,053	960,679	–3,256,094	NA

Tax credit program FY 2005	Issued	Redeemed (also direct cost)	Total cost	Direct benefit	Total benefit	Total net benefit (2005)	Benefit-cost ratio (12-year)
Historic Preservation	80,213,374	74,532,355	74,532,355	5,267,125	7,524,464	–67,007,891	0.66 to 1
Infrastructure	28,964,274	25,953,799	25,953,799	10,286,639	14,695,198	–11,258,601	5.21 to 1
Brownfield Redevelopment (remediation)	14,808,297	10,627,870	10,627,870	2,639,434	3,770,620	–6,857,250	2.89 to 1
Affordable Housing Assistance	9,133,829	7,702,860	7,702,860	1,073,787	1,533,982	–6,168,878	0.32 to 1***
New and Expanded Business Facility	8,779,797	4,546,330	4,546,330	7,914,995	11,307,136	6,760,806	24.05 to 1
Neighborhood Preservation Tax	6,784,310	8,461,503	8,461,503	698,739	998,198	–7,463,305	0.19 to 1***

NOTE: *Redeemed is slightly less than direct cost; **reports negative indirect costs; ***5-year.

Table 3

Reported Impact of $1 of Redeemed FY 2005 Tax Credits on Personal Income (over 5 or 12 years)

Tax credit program	New personal income
Historic preservation**	$11.68
Infrastructure**	137.01
Brownfield (remediation)**	64.18
Affordable housing*	5.59
Business facility**	499.70
Neighborhood preservation*	3.32

NOTE: *Indicates 5 years; **indicates 12 years.

in the long run). Only the business facility credit generates net benefits in both the short and long run.

Regarding tangible nonfiscal costs and benefits, DED produces a range of information on the impact of each program in the short and long run. For illustration, Table 3 presents the long-run increase in personal income for every dollar of redeemed credits in 2005.[12]

From an economic perspective, there are two basic problems with the way DED evaluates the tax credit programs. First, DED regards each program as if its purpose were economic development (i.e., to create faster growth or more jobs than would occur otherwise). This is not true, however, because some of these programs are more likely to correct market failures or reduce economic disparities than promote development. These different goals imply different structural features for the programs and require the measurement of somewhat different variables for proper program evaluation. We discuss these points in greater detail in the section on program design and evaluation. In many cases, DED's focus on development forces a stark mismatch between its analysis and the analysis suggested by economic theory.

A second problem comes from DED's tendency to produce lists of raw information, like that in Table 3. Although this information should certainly be reported, lists of facts about impact are not a substitute for a single, bottom-line number of all the *tangible* benefits and costs for each program. By tangible program benefits and costs, we mean simply those impacts that can be plausibly converted into dollars and cents. Public policies often have important *intangible* benefits and costs. These highly subjective items are key components of policies that preserve state history, reduce poverty, and promote opportunity, but may also interfere with property rights or reduce the incentive to work. Concrete information about tangible benefits and costs is essential for having an informed debate over intangible benefits and costs. Economic analysis cannot remove the subjective element in program evaluation. It can, however, narrow it substantially. Lists of raw data do not do this.[13]

OTHER EVALUATIONS OF THE PROGRAMS AND OF DED

We found three recent evaluations of the Missouri tax credit programs besides those done by DED. We present a brief discussion of each.

The State Auditor's Report

In February 2001, the Missouri state auditor issued a report entitled, "Review of the State Tax Credits Administered by the Department of Economic Development" (Office of the State Auditor of Missouri, Claire McCaskill, 2001). For our purposes, the report makes three points worth noting.

First, the report is very critical of data collection at DED. The accuracy of the collected data is one concern, but the report focuses more sharply on omissions in data collection:

> Key data such as number of actual jobs created per project, average wages, total investment, industry sectors affected, street addresses for the projects and other relevant information are not

[12] This is clearly the total effect over the given time period and not the average annual effect over the time period. We do not know whether DED uses a discount rate in computing the total effect.

[13] For an excellent example of one way to produce a single measure of all tangible costs and benefits, see Bartik (2005).

> captured in a centralized management information system and in some cases are not captured at all. (p. 2)
>
> Data is not maintained or monitored for 16 of 33 tax credit programs. These 16 programs are formula-based tax credits, which are granted if the project meets the eligibility requirements set out in the authorizing statute. Department of Economic Development management stated that it is not the responsibility of the agency to monitor the economic impact that formula-based tax credits have on the state because they have no discretion over whether projects qualifying for the tax credit receive the tax credit. (p. 7)

Second, the report is very critical of "cost-benefit analysis." It is not entirely consistent in its use of this term, but the intent is clear:

> A former economist for the Department of Economic Development, who was the former Manager and Senior Economist for Office of Research and Policy Analysis, said that he has read a lot of the economic literature and attended numerous national conferences and has come to the conclusion that no one knows how to perform a useful cost-benefit analysis of tax credit programs. (p. 4-5)

This comment, while not entirely without foundation, is presented as a definitive statement about a fundamental limit of economic analysis. We think it more accurately reflects something else. One cannot perform a meaningful cost-benefit analysis of tax credit programs by treating all of them as if they were economic development programs. Some programs address market failures and others address disparities and inequities. Only some are supposed to promote economic development. One can use cost-benefit analysis in all cases, but one must measure different variables depending on the purpose of the program. Ignoring these differences and reviewing non-development credits as if they were development credits is an incoherent exercise. It should not be surprising that no one knows how to do it.

The auditor concludes by calling for an "impact analysis" of each program. She had her staff analyze four of the smaller tax credit programs. In each case she used DED's regional forecasting model to consider the impact of the tax credits issued on state revenues, employment, wages, and gross state product. To make the simulation internally consistent, she assumed that government spending would fall by the amount of the tax credits redeemed. She also sent surveys to recipients of the tax credits, asking if the credits were essential to their decision to make their investments.[14]

The impact analysis conducted by the auditor was a step in the right direction in 2001. It is now conducted by DED for all its tax credit programs, and the results are presented in its annual report.[15]

Don Phares's Report

Don Phares (2003) of the University of Missouri at St. Louis produced a report for the Department of Revenue entitled, "Examining Missouri's Tax System: Tax Expenditures—A First Step."[16]

The term "tax expenditures" in the title is very general. It encompasses all exceptions to general tax rules that result in less tax liability for some entity. Tax credits are one kind of tax expenditure.

Professor Phares echoes the auditor's call for more data collection, noting the progress DED made in evaluating the programs under its discretion; he adds, however, that "proper evaluation would allow the extent to which [the credits] meet their intended purpose to be addressed" (p. 13). This refrain is likely to be repeated into the indefinite future, until such time as (i) it is recognized that the intended purpose may be to address some kind of market failure or to correct disparities and inequities and not merely to promote economic development, (ii) key program parameters are

[14] Asking the recipients of the tax credits if the credits were essential to their decisions is a highly problematic exercise. The recipients have their own agendas, and they may answer these questions in pursuit of those agendas. This may not entail giving a thoughtful or candid answer to a direct question. One of the purposes of social science and nonexperimental statistics is to provide methods for learning about the causes of choices without relying on answers to these kinds of questions. Furthermore, while the auditor is certainly right that the only way to answer the question with "absolute certainty" in each case is to know the subjective thoughts of the project managers (p. 19), a "statistical certainty" is often enough for policy purposes.

[15] We were told that DED does try to determine for the discretionary programs whether the credits are essential to the investment decisions.

[16] The report contains references to other evaluations of Missouri tax credits that we do not discuss here.

Table 4

Recommendations of the Incentives Review Committee

Tax credit program	Recommendation
Historic preservation	Maintain
Infrastructure[17]	Maintain
Brownfield (remediation)	Maintain[18]
Affordable housing	Maintain
Business facility	(Not evaluated)[19]
Neighborhood preservation	Improve

chosen in ways that are consistent with each program's rationale, and (iii) each program is evaluated in ways that are consistent with its rationale.

Incentives Review Committee Report

The most recent report on tax credit programs in Missouri was undertaken by the Incentives Review Committee of the Missouri Department of Economic Development (2005), pursuant to a request by Governor Matt Blunt. It has the efficient title, "Report on Missouri Incentives Programs."

This report is excellent in two respects. First, it pays careful attention to the different purposes of each program. Second, it recommends evaluation criteria that bear some connection to these purposes. This makes an interesting contrast with the auditor's report on the issue of (broad) cost-benefit analysis. Indeed, its two pages of criteria for program evaluation really go beyond cost-benefit analysis and include objectives such as transparency and low transactions costs (although it uses different language). The committee then provides a brief evaluation of each program and a recommendation to "improve," "combine," "delete," or "maintain" the program.

Unfortunately, it is not clear how rigorously the committee used these criteria in developing their evaluations and recommendations. The report gives only a brief discussion of each program and provides little explanation for its conclusions. Furthermore, implementing these criteria would have required extraordinary amounts of money, time, data, and expertise. Even with those, the analysts would have needed to conjecture about missing information and poorly understood behavioral responses. This would have necessitated a sensitivity analysis to determine how the conclusions depended on the assumptions. If the authors did these things, they do not mention them in the report.

We report in Table 4 the recommendations in the report for our six programs.

The only recommendation for change is for the neighborhood preservation credit. The authors note that

> [t]he program is based on a first-come allocation and the demand is significantly more than the annual allocation. As such, the distribution of funding has been on a lottery basis, which does not provide for a concentrated redevelopment impact. Also, some areas in the city-wide distressed areas are not lower income. (p. 40)

Their recommendation for improvement is to

> [e]nact legislation to award funds on a competitive basis, requiring a comprehensive neighborhood redevelopment plan. (p. 40)

PROGRAM DESIGN AND PROGRAM EVALUATION

Are Missouri's tax credit programs good public policy? We take this question to mean, in the broadest possible terms, is there something inefficient or unfair about the outcomes that would result if the program did not exist? We provide a general discussion of this question for each of the six largest tax credit programs (by number of credits issued) that have freely transferable credits. In doing this, we draw on current research in local public-sector economics and basic economic principles. Given the difficulty of the question and the limited amount of information available about these programs,

[17] This is listed in the report as the "MDFB Contribution Credit."

[18] The summary table at the front of the report recommends "combine," but in the discussion of the program the recommendation is "maintain." The former appears to be an editing error.

[19] This program is being phased out, as noted in the section that provides brief descriptions of these programs.

however, we decided not to overly simplify matters just to provide "yes" or "no" answers.

Although our analysis is qualitative and not quantitative, we must still keep a specific thought experiment in mind to evaluate the programs consistently. Following standard practice in the evaluation of tax policy, the initial assumption is that the tax credit program does not exist and the state budget is balanced. The tax credit is then introduced. This creates a shortfall in revenue that must be met either by a reduction in spending or an increase in other taxes: We generally consider both cases. These changes taken together have equity and efficiency implications.

Historic Preservation Tax Credit Program

Recall our basic question in the context of this program. This tax credit causes Missouri to have more historic structures than market forces alone would provide. Is there something inefficient or unfair about this?

The main reason that the market may fail here is that historic structures provide benefits to more people than just the owners of the structures. For example, the structures may enhance local property values or generate local tourism. These benefit many non-owners. In the formal language of economics, the market for historic structures does not capture the "willingness to pay" of all the beneficiaries, who receive a "positive externality." The result is that too few structures are preserved. This simple point has useful implications for program design and evaluation.

First, an efficient program must have a carefully chosen subsidy rate. This rate should induce additional preservation activity up to the point where the total additional benefits from this activity (higher property values, tourism, etc.) exactly balance the total additional cost. These costs would include the "true" cost of the subsidy itself. This could well be more than the dollar value of the subsidy, both because raising revenue is costly and because any state services forgone to fund the subsidy may be worth more than their simple dollar value. We have no way to determine whether the current 25 percent subsidy rate is proper according to these economic criteria.[20]

Second, even if the policy were well designed, it would never pass a cost-benefit test that sums up only fiscal costs and benefits (i.e., state tax revenues that are lost or gained). This is true at the current subsidy rate and should also be true at the proper subsidy rate, given the highly indirect links between historic preservation activities and state tax revenues. The policy should, however, pass a cost-benefit test that sums up all tangible costs and benefits. As noted above, these benefits would include the willingness to pay of all the beneficiaries of the program. Also as noted above, a bottom-line estimate of all the tangible net benefits would allow citizens and legislators to debate, in a structured (albeit subjective) way, the intangible aspects of the program.

Finally, we note that the program is an entitlement. Entitlement tax credits, in contrast to discretionary credits, are often criticized because they probably give more money for activities that would have been undertaken anyway.[21] To the extent this occurs, the program is redistributing income from one group of taxpayers (those who fund the subsidy or lose government benefits) to another (those who engage in preservation activities). This may not be entirely bad, however. If the subsidy is funded by higher taxes and some of those taxpayers receive positive externalities from historic structures, then they are now simply paying for something that they previously enjoyed for free.

More generally, one should not overreact to the incidental income transfers that will always be part of simple market solutions to market failures. The alternative is to make the tax credit discretionary, but this would certainly lead to higher administrative costs. There is a trade-off between incidental redistribution and administrative costs that should not be forgotten and which may not be small.

Infrastructure Tax Credit Program

This program allows local communities to have more and better public infrastructure than they would otherwise have. Again we ask, Is there

[20] Note that these criteria have nothing to do with economic development.

[21] Entitlement credits also tend to be reviewed less carefully. This is a separate issue that is emphasized in Bartik (2005).

something inefficient or unfair about the amount of infrastructure in different communities that market forces alone would provide?

Regarding efficiency, there is a large literature in economics on the question of whether there is a "race to the bottom" in the funding of public infrastructure. The idea is that jurisdictions (communities, states, and even countries) compete with each other for investment and workers by cutting taxes. The question is whether taxes can be cut so far that even basic infrastructure that all residents desire will not be provided. If so, then an infrastructure tax credit program may enhance efficiency by allowing communities to finance the proper amounts of infrastructure despite the race to the bottom.

Whether or not a race to the bottom occurs depends on a number of factors. These include whether communities have the appropriate tax instruments at their disposal, whether there is a large or small number of communities, who owns the land and other spatially fixed inputs to production, the objectives of the local government, and the time frame of the analysis (short run or long run). We think it is fair to say that, except for the very long run, the consensus in the literature is that in the real world there is quite likely to be a race to the bottom in tax cuts and therefore in the funding of public infrastructure.[22]

Given that a race to the bottom tends to exist, the recommendations of economic theory for program design and evaluation are similar to the recommendations for the historic preservation program. The program should subsidize local spending with a carefully chosen subsidy rate. This rate should be selected so that each jurisdiction, acting in a decentralized way, chooses the proper quantity of infrastructure. It can be shown that this essentially requires a subsidy rate equal to the tax revenue each region fears it would lose if it increased its own tax rate (from the rate it would choose without the tax credit program). With this subsidy, the quantity of infrastructure would be such that any further increase in infrastructure would generate only as much consumption as would be foregone to pay for that increase.

Recall that the actual program does not subsidize the local tax rate; rather, it funds $1 of infrastructure through a 50 cent donation from private citizens and (presumably) a 50 cent reduction in state services. Because the structure of this program is so far removed from the basic economic incentives that an efficient program would take into account, it is difficult to evaluate. Given that a market failure exists, the program may well be better than nothing, but that is a low bar to surmount.

Finally, we note that, as with the historic preservation program, even a well-designed infrastructure credit program would never pass a cost-benefit test that sums up only fiscal costs and benefits. There would be little or no connection between the fiscal cost of the proper subsidy and any extra revenues the state would receive from any extra infrastructure attributable to the program. The policy should, however, pass a cost-benefit test that sums up all tangible costs and benefits.

Brownfield Redevelopment Tax Credit Program (Remediation)

This program causes Missouri to have fewer commercial/industrial sites with hazardous substances than market forces alone would allow. Is there something inefficient or unfair about the latter? After all, if land in a certain area becomes scarce enough, then eventually even brownfields will find buyers.

The problem with brownfields, of course, is the problem of negative externalities. Brownfields are ugly, they present various hazards (for example, to ground water), and they deter development somewhat beyond their immediate boundaries. The externalities presumably differ wildly depending on the type of hazardous waste involved and its proximity to different communities. This line of thought leads to the same kind of conclusions as have been drawn for the previous two programs, with one major exception. The huge variation in external damages at different locations provides an economic rationale for making the program discretionary, which it is.

Unfortunately, if this is the right perspective on this program, then another feature of its design

[22] The literature is large, but the key papers on which this conclusion is based are by Zodrow and Mieszkowski (1986), Wildasin (1989), and Myers (1990).

presents a paradox. The program charges *taxpayers* 100 percent of the costs of cleanup, but only when a third party, a commercial developer, is interested in the site. This is very odd. If a brownfield is creating large enough negative externalities that citizens are willing to pay 100 percent of the costs to clean it up, then one should expect them to raise the funds and do so. The broad-based taxes they would generally use are not ideal for this purpose, but they are practical and they work. We therefore expect most brownfields to exist where citizens' willingness to pay is less than the cost of cleanup. This makes it efficient to wait until a third party—the developer—has a willingness to pay to make up the difference. However, because the developer does not pay anything for the cleanup, it is unlikely that his willingness to pay *does* make up the difference. The developer's interest is simply an expressed desire to have something when other people pay for it. If citizens' and the developer's total willingness to pay is less than the actual cost of the cleanup, then the cleanup is inefficient. It is also arguably unfair to have the taxpayers pay the full cost.

Affordable Housing Assistance Tax Credit Program

This program is obviously intended to be redistributive. One must recognize this fact to properly evaluate the program. An efficiency issue is also present, however. We discuss this first.

Affordable housing policy in one state always raises the question of whether it may lead people from other states to move to the more generous state. This is a variation on the race to the bottom discussed under the infrastructure program. Unfortunately, although state action can help overcome the problems of fiscal competition among local communities, federal action would be required to help overcome the problems of fiscal competition among the states. The movement of low-income residents in response to differences in benefits across states has been studied for many years by all kinds of social scientists. For the purposes of the analysis here, we assume that these movements are small. The proper evaluation of this program by DED would make use of this literature.

In contrast with the historic preservation program, this program's focus on redistribution makes more central the issue of whether the program creates housing that would not have been created otherwise. In other words, it is important to know if the program merely "crowds out" private spending on the construction of affordable housing. If the program is ineffective in this way and funded by higher taxes, then there is an income transfer from taxpayers to developers and the poor are most likely neither harmed nor helped. If the program is ineffective and funded by reduced state spending in other areas, then the poor may well be worse off.

It is surely unlikely that an affordable housing program crowds out for-profit private-sector spending. It is a fair question, however, whether it crowds out not-for-profit or philanthropic spending on affordable housing. If it does, then it is difficult to see how the poor could be helped, and any reductions in other programs to fund this program could be harmful. Again, there is a literature in economics on this issue, and the proper evaluation of this program by DED would make use of it.

No purely redistributive program would pass a cost-benefit test of either fiscal costs and benefits or tangible costs and benefits. Tangible costs and benefits would exactly balance if funds could be raised costlessly and services delivered without waste; but neither is true. Thus, tangible costs will always exceed benefits. Again, this makes it important to have a single, bottom-line measure of the tangible net costs of the program. Presenting this information on, say, a per-beneficiary basis might allow citizens and legislators to debate, in a structured way, whether the intangible benefits of housing assistance are sufficient to offset the costs.

New and Expanded Business Facility Tax Credit Program

At long last, we come to an economic development program. In other words, this program does not correct a market failure or attempt to redistribute income to assist the poor. It is an attempt to create growth that market forces alone would not provide.[23]

[23] "Missed development opportunities" may result from missing capital markets or missing insurance markets. These market failures are qualitatively different from the externalities discussed above, however.

DED's methods of analysis are directed toward addressing this question. Even here, however, it is possible to take the analysis much further than DED does. A proper evaluation of economic development programs would have the following steps, of which the DED does only the first.

1. For all programs, determine the long-run fiscal benefits and costs.
2. For all programs, determine the other tangible long-run benefits and costs. Roughly, these benefits would include the extra earnings of residents due to improvements in local labor markets and increases in property values, while costs would include any extra public services or infrastructure required.
3. Combine steps 1 and 2 to compute a single, bottom-line measure of the tangible net benefits or net costs of each program.
4. Perform sensitivity analysis to remedy the problems of missing information and poorly understood behavioral responses, which affect steps 1 and 2. For step 1, there is uncertainty over how much activity would take place if not for the credits and uncertainty over the multiplier effects used to compute long-run fiscal benefits. For step 2, the benefits and costs of the labor market effects, for example, are sensitive to whether the new jobs are going to people who were formerly unemployed or not.[24]

The business facility credit raises tax revenue in the short and long run. The only issue, then, is whether the costs of additional public services that come with development could offset the large gains reported by the state. This seems highly unlikely.

Neighborhood Preservation Tax Credit Program

The efficiency rationale for this program is very similar to the rationale for the historic preservation program. Preserving neighborhoods has benefits to people besides those who buy, sell, and improve homes in those neighborhoods. We refer the reader to the discussion of the historic preservation program for the basic analysis.

Finally, recall the recommendation of the Incentives Review Committee for this program (see the section on other evaluations of the programs and of the DED). They argue that redevelopment should be concentrated and the subsidy given to activities that are part of a redevelopment plan. This is correct if the external benefits of neighborhood preservation are highly dependent on concentrated activity. This seems likely. No similar recommendation was made for the historic preservation program, but this is a sound position with regard to efficiency if even somewhat isolated historic structures have external value.

SHOULD THE TRANSFERABLE CREDITS ALSO BE REFUNDABLE?

We conclude by considering a reform that would be applicable to all but the business facility tax credit. None of the other five credits is refundable. That is to say, once an entity has offset all of its tax liability it cannot use the remainder to receive a refund from the state. The only way an entity with little or no tax liability (like a nonprofit organization) can benefit from the tax credits is by selling them. In contrast, the business facility credit is refundable and transferable.[25]

A potential problem with credits that are just transferable is straightforward: A $1 tax credit does not sell for $1, but the credit will cost the taxpayers of Missouri that amount when it is redeemed. Money that was supposed to support public programs ends up as profit to the buyer of the credits. In contrast, if the tax credits were *also* refundable, then every tax dollar spent on the tax credit would go toward the intended activity.

[24] This is emphasized in Bartik (2005).

[25] The refundability and transferability of the business facility credit are somewhat constrained, however. Missouri Revised Statutes, Chapter 135, Section 135.110 states, "[T]o the extent such credits exceed the taxpayer's Missouri tax on taxable business income, [they] shall constitute an overpayment of taxes and in such case, be refunded to the taxpayer provided such refunds are used by the taxpayer to purchase specified facility items." If the credits are sold, the selling price must be at least 75 percent of the face value. This seemed like a minor constraint, however, which is why we consider the credit to be freely transferable.

Table 5

Transactions Prices for Tax Credits

Program	Observations	Average sale price per dollar	Standard deviation	Average transaction
Historic preservation	3,624	90 cents	5 cents	$178,622
Brownfield (remediation)	816	91 cents	6 cents	137, 442
Neighborhood preservation	1,322	87 cents	9 cents	28,658

To illustrate, we recently obtained data on all transactions from 2002-06 for the historic preservation, neighborhood preservation, and brownfield (remediation) credits.[26] As Table 5 shows, they all sell for about 10 cents (per dollar) below face value.

Many factors contribute to the discount on the tax credits. For arm's length transactions, the purchaser of the credit would take into account the competitive return on other uses of her capital. This in turn would depend on how long she expects her capital to be tied up in the investment, the riskiness of the investment, and the true net-of-tax return. As many people with whom we spoke emphasized, the tax consequences of transacting and using the credits is particularly important in evaluating the discount. For example, the profit from purchasing tax credits at a discount and then using them is itself taxable, and the use of the credits also causes a taxpayer who itemizes and pays ordinary income tax (as opposed to alternative minimum tax) to lose some of her federal deduction for state taxes paid. Whether or not these factors could explain the discount, especially for short-term investments, is the subject of ongoing research.

Refundability, especially when coupled with transferability, is a reform that merits further exploration. It is not without its critics, however. Refundability is of no value to agents who need immediate liquidity. For them, transferability is essential. This is most likely for people using the credits as part of the financing for large capital projects. Also, refundability requires an extra degree of cooperation from the government. The state is relatively passive in allowing a taxpayer to sell a credit and take a deduction. The state must act in sending a refund. At least during a recession, the holder of a tax credit who has no tax liability may still want to sell it to someone who has tax liability, even with a discount, if he believes the state may delay paying the refund.[27] At the very least, these points make it clear that refundability should be considered in conjunction with transferability and not as a substitute for it.

CONCLUSIONS

One theme we have emphasized throughout the analysis is that, before one considers the specific goals of a program, one must understand why a program is needed at all. Is there something inefficient or unfair about the outcomes that would result if the program did not exist? Specific goals that exist without a careful analysis of this basic question are likely to be arbitrary and inconsistent.

We pose this basic question for each of the six largest programs (by value of credits issued in 2005) that issued "freely" transferable credits and see where it leads.

More precisely, we ask whether the program addresses a market failure, corrects disparities or inequities, or promotes economic development. We then see how these questions relate to program design and evaluation.

[26] Transactions prices for the affordable housing credit are not available; there seems to have been only one transaction of the business facility credit (which is also refundable); and data on the infrastructure tax credit is still being prepared for us.

[27] It has also been suggested to us that refundable tax credit payments count toward the annual constitutional spending limits in Missouri (the Hancock Amendment) and that recent rulings by the IRS may eliminate income recognition for transferable credits. Evaluating these claims is outside the scope of our analysis here.

This brings us to our second theme. It is a thankless (and flawed) task to evaluate every program as if its purpose were economic development. Different goals imply different structural features for the programs. They also require the measurement of somewhat different variables for proper evaluation. To evaluate a program that corrects an externality, one must gather some information about that externality. To evaluate a program that corrects disparities or inequities, one must talk explicitly about who gains from the program and who loses from the state spending that will be reduced because of the tax revenue forgone as a result of the program.

Third, we emphasize the need for analysis. Lists of raw data about the impact of a policy are not the same thing as evaluation. A proper evaluation develops a single, bottom-line number of all tangible net benefits or costs. This is the only way to set up a rational and informed debate over the subjective or intangible benefits and costs of a program.

In closing, it seems to us that proper program evaluation simply cannot be done right now in Missouri. The Department of Economic Development has great expertise but fundamentally works for whoever occupies the governor's office. This may explain their narrow focus, uniform approach, and tendency to report data instead of conclusions. The state auditor has the necessary independence but lacks the expertise. Outside academics have the expertise but lack the specialized knowledge that accrues to people who evaluate public programs for a living. The state will have many, perhaps even more, tax credit programs into the foreseeable future. It ought to consider creating an organization, perhaps akin to the Congressional Budget Office, with the independence, expertise, and accumulated knowledge that leads to the very best program evaluation.

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APPENDIX

All Tax Programs, Sorted by Amount Issued, FY 2005

Alpha code	Name	Authorization, RSMo.	Transferable	Refundable
LHC	Missouri Low Income Housing	135.350 to 135.363	Yes	No
HPC	Historic Preservation TCP	253.545 to 253.561	Yes	No
EZC	Enterprise Zone	135.200 to 135.270, 135.429	No	Yes
IDC	Infrastructure TCP	100.286(6)	Yes	No
RTC	Brownfield Redevelopment Program (remediation)	447.700 to 447.718	Yes	No
	Certified Capital Companies (CAPCO) Program	135.500 to 135.529	Yes	No
NAC	Neighborhood Assistance	32.100 to 32.125	No	No
	Missouri Health Insurance Pool	376.975	No	No
AHC	Affordable Housing Assistance TCP	32.105 to 32.125	Yes	No
BFC	New and Expanded Business Facility Credit	135.100 to 135.150, 135.258	Yes	Yes
BUC	BUILD (Missouri Business Use Incentives for Large-Scale Development)	100.700 to 100.850	No	Yes
	Examination Fee Tax Credits (exam)	148.400	No	No
	Missouri Property and Casualty Guaranty Association	375.774	No	No
RCN	Neighborhood Preservation Tax Credit	135.475 to 135.487	Yes	No
YOC	Youth Opportunities	135.460 and 620.1100 to 620.1103	No	No
NEC	New Enterprise Creation	620.635 to 620.653	Yes	No
NGC	New Generation Cooperative Incentive	348.430	Yes	No
TDC	Transportation Development	135.545	Yes	No
DPC	Development Tax Credit	32.110 to 32.125	Yes	No
APU	Agricultural Product Utilization Contributor	348.430	Yes	No
RCC	Rebuilding Communities	135.535	Yes	No
BJI	Brownfield "Jobs and Investment"	447.700 to 447.718	No	At DED discretion
MHC	Maternity Home	135.600	No	No
BEC	Bond Enhancement/Bond Guarantee	100.297	Yes	No
DVC	Shelter for Victims of Domestic Violence	135.550	No	No
SBI	Small Business Incubator	620.495	Yes	No
WGC	Wine and Grape Production	135.700	No	No
CPC	Charcoal Producers	135.313	Yes	No
SBG	Small Business Guaranty Fees/Loan Guarantee Fee	135.766	No	No
	Examination Fee Tax Credits (valuation)	148.400	No	No
	Examination Fee Tax Credits (registration)	148.400	No	No
FDA	Family Development Account	208.750 to 208.775	No	No
DTC	Brownfield (demolition)	447.700 to 447.718	No	No
CBC	Community Bank Investment/Community Development Corporation	135.400 to 135.430	Yes	No
DRC	Development Reserve	100.25	Yes	No
DFH	Dry Fire Hydrant	320.093	Yes	No
EFC	Export Finance	100.25	Yes	No
FPC	Film Production	135.750	Yes	No
MQJ	Missouri Quality Jobs	620.1875 to 620.1890	Yes	Yes
SCC	Missouri Business Modernization and Technology	348.300 to 348.318	Yes	No
	Missouri Life and Health Guaranty Association	376.745	No	No
NEZ	New Enhanced Enterprise Zone	135.1050 to 135.1075	Yes	Yes
REC	Qualified Research Expense/Research	620.1039	No	No
SDT	Skills Development Credit	N/A	Yes	No
ISB	Small Business Investment/Capital	135.400 to 135.429	Yes	No
SMC	Sponsorship and Mentoring Program	135.348	No	No
SCT	Shared Care	660.055	No	No
BFT	Bank Franchise Tax	148.064	No	N/A
BTC	Bank Tax Credit for S Corporation Shareholders	143.471	Yes	No
	Cellulose Casings	260.285	No	No
DAC	Disabled Access	135.490	No	No
WEC	Processed Wood Energy	135.300	Yes	No
ATC	Special Needs Adoption	135.325	Yes	No

APPENDIX, cont'd

All Tax Programs, Sorted by Amount Issued, FY 2005

Name	Carry forward	Carry back	Multi-year
Missouri Low Income Housing	5	3	10
Historic Preservation TCP	10	3	
Enterprise Zone	0	0	
Infrastructure TCP	5	0	
Brownfield Redevelopment Program (remediation)	20	0	
Certified Capital Companies (CAPCO) Program	Until used	0	
Neighborhood Assistance	5	0	
Missouri Health Insurance Pool	Until used (excess over tax liability)	No	
Affordable Housing Assistance TCP	10	0	
New and Expanded Business Facility Credit	10	0	
BUILD (Missouri Business Use Incentives for Large-Scale Development)	0	0	
Examination Fee Tax Credits (exam)	5	0	
Missouri Property and Casualty Guaranty Association	No	No	3
Neighborhood Preservation Tax Credit	5	3	
Youth Opportunities	5	0	
New Enterprise Creation	10	0	
New Generation Cooperative Incentive	5	3	
Transportation Development	10	3	
Development Tax Credit	5	0	
Agricultural Product Utilization Contributor	5	3	
Rebuilding Communities	5	3	
Brownfield "Jobs and Investment"	0	0	
Maternity Home	4	0	
Bond Enhancement/Bond Guarantee	10	0	
Shelter for Victims of Domestic Violence	4	0	
Small Business Incubator	5	0	
Wine and Grape Production	0	0	
Charcoal Producers	7	0	
Small Business Guaranty Fees/Loan Guarantee Fee	0	0	
Examination Fee Tax Credits (valuation)	0	0	
Examination Fee Tax Credits (registration)	0	0	
Family Development Account	0	0	
Brownfield (demolition)	20	0	
Community Bank Investment/Community Development Corporation	10	0	
Development Reserve	5	0	
Dry Fire Hydrant	7	0	
Export Finance	5	0	
Film Production	5	0	
Missouri Quality Jobs	0	0	
Missouri Business Modernization and Technology	10	0	
Missouri Life and Health Guaranty Association	No	No	5
New Enhanced Enterprise Zone	0	0	
Qualified Research Expense/Research	5	0	
Skills Development Credit	5	0	
Small Business Investment/Capital	10	3 (Distressed)	
Sponsorship and Mentoring Program	4	0	
Shared Care	0	0	
Bank Franchise Tax	0	0	N/A
Bank Tax Credit for S Corporation Shareholders	4	0	
Cellulose Casings	0	0	
Disabled Access	Unlimited	0	
Processed Wood Energy	4	0	
Special Needs Adoption	4	0	

APPENDIX, cont'd

All Tax Programs, Sorted by Amount Issued, FY 2005

Name	Cap type	Cap amount	Federal deductions
Missouri Low Income Housing	Annual (100% of federal LIHTC)		Yes
Historic Preservation TCP	None		Yes
Enterprise Zone	None		No
Infrastructure TCP	Annual, flexible	10,000,000	No
Brownfield Redevelopment Program (remediation)	None		No
Certified Capital Companies (CAPCO) Program	10-year cumulative		None
Neighborhood Assistance	Annual	18,000,000	No
Missouri Health Insurance Pool	Total of pool		None
Affordable Housing Assistance TCP	Annual	11,000,000	Yes
New and Expanded Business Facility Credit	None		No
BUILD (Missouri Business Use Incentives for Large-Scale Development)	Annual	15,000,000	No
Examination Fee Tax Credits (exam)	Total of pool		None
Missouri Property and Casualty Guaranty Association	Total of pool		None
Neighborhood Preservation Tax Credit	Annual	16,000,000	No
Youth Opportunities	Annual	6,000,000	No
New Enterprise Creation	Cumulative	20,000,000	No
New Generation Cooperative Incentive	Annual	6,000,000	No
Transportation Development	Annual	10,000,000	No
Development Tax Credit	Annual	6,000,000	No
Agricultural Product Utilization Contributor	Annual	6,000,000	No
Rebuilding Communities	Annual	8,000,000	No
Brownfield "Jobs and Investment"	None		No
Maternity Home	Annual	2,000,000	N/A
Bond Enhancement/Bond Guarantee	Cumulative	50,000,000	No
Shelter for Victims of Domestic Violence	Annual	2,000,000	None
Small Business Incubator	Annual	500,000	No
Wine and Grape Production	None		No
Charcoal Producers	None	0	N/A
Small Business Guaranty Fees/Loan Guarantee Fee	None		No
Examination Fee Tax Credits (valuation)	Total of pool		None
Examination Fee Tax Credits (registration)	Total of pool		None
Family Development Account	Annual	4,000,000	No
Brownfield (demolition)	None		No
Community Bank Investment/Community Development Corporation	Cumulative	6,000,000	No
Development Reserve	None	None	No
Dry Fire Hydrant	Annual	500,000	No
Export Finance	None	None	No
Film Production	Annual	1,500,000	No
Missouri Quality Jobs	Annual	12,000,000	No
Missouri Business Modernization and Technology	Cumulative	9,000,000	No
Missouri Life and Health Guaranty Association	Total of pool		None
New Enhanced Enterprise Zone	Annual	4,000,000	No
Qualified Research Expense/Research	Annual	10,000,000	No
Skills Development Credit	Annual	6,000,000	N/A
Small Business Investment/Capital	Cumulative	13,000,000	No
Sponsorship and Mentoring Program	Appropriation	0	None
Shared Care	None		N/A
Bank Franchise Tax	None		No
Bank Tax Credit for S Corporation Shareholders	None		No
Cellulose Casings	Appropriation		No
Disabled Access	None		Yes
Processed Wood Energy	None		No
Special Needs Adoption	Annual		Yes

APPENDIX, cont'd

All Tax Programs, Sorted by Amount Issued, FY 2005

Name	Fiscal year 2005 Authorized	Issued	Redeemed	Total outstanding
Missouri Low Income Housing	183,106,160	83,477,412	65,392,601	156,095,405
Historic Preservation TCP	116,566,180	80,213,374	74,532,355	61,343,552
Enterprise Zone	39,066,023	39,066,023	25,294,754	0
Infrastructure TCP	10,398,000	28,964,274	25,953,799	37,308,093
Brownfield Redevelopment Program (remediation)	15,515,319	14,808,297	10,627,870	4,180,427
Certified Capital Companies (CAPCO) Program	14,000,000	14,000,000	13,429,309	45,440,744
Neighborhood Assistance	16,000,000	11,263,385	9,286,880	14,000,000
Missouri Health Insurance Pool	10,015,203	10,015,203	6,121,053	9,066,945
Affordable Housing Assistance TCP	11,000,000	9,133,829	7,702,860	15,000,000
New and Expanded Business Facility Credit	8,779,797	8,779,797	4,546,330	3,085,774
BUILD (Missouri Business Use Incentives for Large-Scale Development)	7,842,167	8,419,707	3,770,557	4,649,150
Examination Fee Tax Credits (exam)	7,576,530	7,576,530	2,650,135	5,703,974
Missouri Property and Casualty Guaranty Association	7,227,710	7,227,710	5,965,556	1,998,707
Neighborhood Preservation Tax Credit	13,609,190	6,784,310	8,641,503	6,824,880
Youth Opportunities	6,438,159	4,476,005	3,211,185	5,000,000
New Enterprise Creation	0	4,212,752	2,504,561	7,155,490
New Generation Cooperative Incentive	6,000,000	3,915,000	3,334,935	6,749,210
Transportation Development	6,682,249	3,226,568	3,545,219	7,000,000
Development Tax Credit	5,591,000	2,866,000	2,487,152	6,762,264
Agricultural Product Utilization Contributor	6,000,000	2,081,343	1,639,540	4,593,008
Rebuilding Communities	6,970,463	1,736,701	1,694,006	1,955,245
Brownfield "Jobs and Investment"	406,273	1,646,927	1,726,687	0
Maternity Home	953,987	953,987	743,635	N/A
Bond Enhancement/Bond Guarantee	870,275	870,275	594,034	276,241
Shelter for Victims of Domestic Violence	2,000,000	648,618	515,034	1,251,032
Small Business Incubator	500,000	361,913	246,807	384,983
Wine and Grape Production	313,683	313,683	179,323	0
Charcoal Producers	146,606	146,606	70,151	575,597
Small Business Guaranty Fees/Loan Guarantee Fee	103,591	103,591	11,224	0
Examination Fee Tax Credits (valuation)	35,000	35,000	12,000	23,000
Examination Fee Tax Credits (registration)	24,430	24,430	24,430	0
Family Development Account	780,000	7,625	12,875	4,000
Brownfield (demolition)	0	0	0	0
Community Bank Investment/Community Development Corporation	0	0	2,021,628	1,250,000
Development Reserve	0	0	0	0
Dry Fire Hydrant	0	0	17,228	65,000
Export Finance	0	0	0	0
Film Production	1,500,000	0	322,079	752,705
Missouri Quality Jobs	0	0	0	0
Missouri Business Modernization and Technology	0	0	164,894	337,341
Missouri Life and Health Guaranty Association	0	0	0	0
New Enhanced Enterprise Zone	0	0	0	0
Qualified Research Expense/Research	0	0	1,626,864	5,823,761
Skills Development Credit	0	0	0	0
Small Business Investment/Capital	0	0	109,050	969,475
Sponsorship and Mentoring Program	854,443		0	0
Shared Care	N/A	N/A		0
Bank Franchise Tax	N/A	N/A	2,543,523	0
Bank Tax Credit for S Corporation Shareholders	N/A	N/A	941,460	N/A
Cellulose Casings	N/A	N/A	382,540	0
Disabled Access	N/A	N/A	56,761	N/A
Processed Wood Energy	3,348,890	N/A	3,700,285	N/A
Special Needs Adoption	N/A	N/A	2,578,354	N/A

APPENDIX, cont'd

All Tax Programs, Sorted by Amount Issued, FY 2005

Name	Special status
Missouri Low Income Housing	
Historic Preservation TCP	
Enterprise Zone	Phasing out
Infrastructure TCP	
Brownfield Redevelopment Program (remediation)	
Certified Capital Companies (CAPCO) Program	Cap reached
Neighborhood Assistance	
Missouri Health Insurance Pool	
Affordable Housing Assistance TCP	
New and Expanded Business Facility Credit	Phased out
BUILD (Missouri Business Use Incentives for Large-Scale Development)	
Examination Fee Tax Credits (exam)	
Missouri Property and Casualty Guaranty Association	
Neighborhood Preservation Tax Credit	
Youth Opportunities	
New Enterprise Creation	Cap reached
New Generation Cooperative Incentive	Cap is sum of both DOA tax credits
Transportation Development	Expired
Development Tax Credit	6,000,000 cap only for FY 2005-07
Agricultural Product Utilization Contributor	Cap is sum of both DOA tax credits
Rebuilding Communities	
Brownfield "Jobs and Investment"	
Maternity Home	
Bond Enhancement/Bond Guarantee	Cap remaining 48,812,870
Shelter for Victims of Domestic Violence	Moved to DSS
Small Business Incubator	
Wine and Grape Production	
Charcoal Producers	Expired
Small Business Guaranty Fees/Loan Guarantee Fee	
Examination Fee Tax Credits (valuation)	
Examination Fee Tax Credits (registration)	
Family Development Account	
Brownfield (demolition)	
Community Bank Investment/Community Development Corporation	Cap reached
Development Reserve	Issued from account, no accounts opened
Dry Fire Hydrant	Expired
Export Finance	Issued from account, no accounts opened
Film Production	
Missouri Quality Jobs	Starts FY 2006, and cap set at 7,000,000
Missouri Business Modernization and Technology	Cap reached
Missouri Life and Health Guaranty Association	None since 1998
New Enhanced Enterprise Zone	Starts FY 2006
Qualified Research Expense/Research	Expired
Skills Development Credit	Repealed after no one used it
Small Business Investment/Capital	Cap reached
Sponsorship and Mentoring Program	Not funded
Shared Care	
Bank Franchise Tax	
Bank Tax Credit for S Corporation Shareholders	
Cellulose Casings	
Disabled Access	
Processed Wood Energy	
Special Needs Adoption	Outstanding N/A, DNR authorizes, Department of Revenue redeems no cross check

APPENDIX, cont'd

All Tax Programs, Sorted by Amount Issued, FY 2005

Name	Missouri agency
Missouri Low Income Housing	Housing Development Commission
Historic Preservation TCP	Department of Economic Development
Enterprise Zone	Department of Economic Development
Infrastructure TCP	Development Finance Board
Brownfield Redevelopment Program (remediation)	Department of Economic Development
Certified Capital Companies (CAPCO) Program	Department of Economic Development
Neighborhood Assistance	Department of Economic Development
Missouri Health Insurance Pool	Department of Insurance
Affordable Housing Assistance TCP	Missouri Housing Development Commission
New and Expanded Business Facility Credit	Department of Economic Development
BUILD (Missouri Business Use Incentives for Large-Scale Development)	Development Finance Board
Examination Fee Tax Credits (exam)	Department of Insurance
Missouri Property and Casualty Guaranty Association	Department of Insurance
Neighborhood Preservation Tax Credit	Department of Economic Development
Youth Opportunities	Department of Economic Development
New Enterprise Creation	Department of Economic Development
New Generation Cooperative Incentive	Agricultural and Small Business Development Authority
Transportation Development	Department of Economic Development
Development Tax Credit	Department of Economic Development
Agricultural Product Utilization Contributor	Agricultural and Small Business Development Authority
Rebuilding Communities	Department of Economic Development
Brownfield "Jobs and Investment"	Department of Economic Development
Maternity Home	Department of Social Services
Bond Enhancement/Bond Guarantee	Department of Economic Development
Shelter for Victims of Domestic Violence	Department of Public Safety
Small Business Incubator	Department of Economic Development
Wine and Grape Production	Department of Economic Development
Charcoal Producers	Department of Natural Resources
Small Business Guaranty Fees/Loan Guarantee Fee	Department of Economic Development
Examination Fee Tax Credits (valuation)	Department of Insurance
Examination Fee Tax Credits (registration)	Department of Insurance
Family Development Account	Department of Economic Development
Brownfield (demolition)	Department of Economic Development
Community Bank Investment/Community Development Corporation	Department of Economic Development
Development Reserve	Development Finance Board
Dry Fire Hydrant	Department of Economic Development
Export Finance	Development Finance Board
Film Production	Department of Economic Development
Missouri Quality Jobs	Department of Economic Development
Missouri Business Modernization and Technology	Department of Economic Development
Missouri Life and Health Guaranty Association	Department of Insurance
New Enhanced Enterprise Zone	Department of Economic Development
Qualified Research Expense/Research	Department of Economic Development
Skills Development Credit	Department of Economic Development
Small Business Investment/Capital	Department of Economic Development
Sponsorship and Mentoring Program	Department of Elementary and Secondary Education
Shared Care	Department of Health, Division of Senior Services
Bank Franchise Tax	Department of Revenue
Bank Tax Credit for S Corporation Shareholders	Department of Revenue
Cellulose Casings	Department of Revenue
Disabled Access	Department of Revenue
Processed Wood Energy	Department of Natural Resources
Special Needs Adoption	Department of Revenue