# CHAPTER 7:
## FISCAL ANALYSIS

This chapter presents the findings of the fiscal outcomes study. The first section describes the fiscal stimulus embedded in the ProtectOhio Waiver and its expected impact. Next, we describe the data collected by the fiscal study team and issues that arose in interpreting the data. The third section describes changes in foster care board and maintenance expenditures and related data. Then, we report on the analysis of how much flexible funding demonstration counties had during the second evaluation period and the extent to which those funds were spent on child welfare purposes other than foster care board and maintenance. The final section contains a discussion of the results.

The purpose of the Ohio Title IV-E Waiver is to promote public investment in service alternatives to foster care. As discussed in previous chapters, the premise underlying the implementation of the waiver is that underinvestment in placement alternatives leads counties to use foster care above a level that is otherwise necessary. The lack of investment in placement alternatives is due in part to the fact that Title IV-E board and maintenance funds can only be spent on out-of-home care. The flexibility allowed under the waiver is intended to open IV-E funds to a greater variety of uses. If counties take advantage of the flexibility and build alternatives to foster care, one would expect lower utilization of foster care and a concomitant increase in expenditures for non-placement services and other supports.

The purpose of the fiscal outcomes study is to judge whether the fiscal stimulus had a general effect on expenditure patterns across the full set of demonstration counties; the study is not intended to judge whether any particular county or counties responded effectively to the waiver stimulus. In fact, even if several counties were successful at changing service delivery patterns, the fiscal study may not reveal that the stimulus was sufficiently strong to generate a general effect, particularly if comparison counties took steps to decrease foster care expenditures in the absence of the waiver. As with the other studies in the ProtectOhio evaluation, the fiscal analysis is based on the evaluation of the group of demonstration counties compared to the group of comparison counties.

The waiver has been in place for the original 14 demonstration counties since October 1, 1997. The fiscal analysis of the first waiver period (October 1, 1997-September 30, 2002) was published in 2003 (HSRI, 2003); the report provided evidence that foster care utilization, unit costs and therefore expenditures in the demonstration county group during the five years of the waiver did not appear to be different from foster care utilization and unit costs in the comparison county group during the same time period.

The Department of Health and Human Services authorized a new five-year waiver period that began on October 1, 2004. The fiscal study addresses the question of whether the second waiver had the hypothesized effect on child welfare expenditure patterns, relative to the period prior to the second waiver. This chapter presents the analysis of data collected from 2004, three-quarters of a year prior to the beginning of the second waiver, through 2008, one year prior to the end of the second waiver period. Four new demonstration counties joined the waiver during the second period; data for three of these counties is presented, but the analysis focuses on the original counties.

## 7.1 WAIVER STIMULUS

The fiscal stimulus embedded in the ProtectOhio Waiver was anticipated to reduce foster care expenditures in demonstration counties by allowing county administrators freedom to invest in services other than foster care. Yet, waiver participation posed both benefits and risks to county administrators. This section describes the influence of waiver participation on Title IV-E revenues in demonstration counties and the payment methodology of the first and second waivers.

### 7.1.1 Theory of Waiver Stimulus

Counties participating in the waiver traded guaranteed, unlimited, fee-for-service federal contributions to foster care board and maintenance costs for certain children for a fixed amount of money that could be used for all child welfare services for any child. The fixed amount of money was intended to be the same amount as the county would have received under normal Title IV-E reimbursement rules in the absence of the waiver. The amount was based on each county's historical foster care expenditures, adjusted each year in accordance with changes in foster care utilization and unit costs of a group of cost-neutrality control counties not participating in the waiver.

This trade had three facets for demonstration counties. First, the waiver gave county administrators the opportunity to treat federal Title IV-E revenue as a source of flexible funding that could be allocated to a range of child welfare services that normally could not be supported with Title IV-E funding. The waiver addressed the prevailing belief that restricting the use of Title IV-E funding to foster care created a disincentive for reducing foster care expenditures. Without the waiver, counties would "lose" federal Title IV-E funding if the county agency was able to reduce foster care expenditures. Under the waiver, counties would be able to retain this federal Title IV-E funding for other child welfare purposes. As a result, administrators in demonstration counties were expected to take more action to reduce foster care expenditures in ways that were favorable to children, families, and communities compared to comparison counties. This would be done by making management and program changes within current resources or investing flexible funds in service alternatives designed to reduce admissions to foster care, reduce length of stay in foster care, and reduce the use of high-cost placements. The federal share and local share of reductions in foster care expenditures, available as a result of the waiver, could allow county administrators to further diversify investments in services other than foster care, strengthen families and communities, and continue reducing the need for foster care.

Second, the waiver made the amount of Title IV-E revenue more predictable. Rather than fluctuating with the number of children in placement or the number of high-cost placements, the waiver payment grew or shrunk a relatively small amount from year to year. As will be discussed in the next section, revenue in the second waiver period became even more predictable when annual Title IV-E eligibility rates were removed from the calculation.

Third, the waiver exposed county administrators to new risks. At a minimum, county administrators risked that the fixed amount of money received through the waiver would be less than the county would have received under normal Title IV-E reimbursement rules. If foster care expenditures did not change at the same rate as the control counties during the waiver period, the county would lose revenue as a result of waiver participation. In addition, county administrators risked the amount they had invested in services intended to reduce foster care expenditures. If foster care expenditures did not go down, these investments would not be paid for by reductions in foster care and would have to be funded by another source of revenue.

### 7.1.2 Structure of Waiver Stimulus

The structure of the waiver stimulus has been the same since the beginning of the waiver in 1997. The essential feature of the payment methodology was that a county's Title IV-E foster care payment in a given year was based on the prior year's payment, adjusted by the change in placement day usage and unit costs generated by a group of control counties.[1] Thus the two components of foster care expenditures – days and unit costs – were allowed to vary independently.

The base amount for the original set of demonstration counties traces back to the county's own historical foster care expenditures and care day utilization from July 1, 1996-June, 30 1997. From this historical period was used to derive a base unit cost and a base number of care days. This base unit cost and number of care days became the county's ProtectOhio "budget." At the beginning of second year of the waiver and for each year after that, ODJFS applied estimates of changes in control county unit cost and placement days to the previous year's budget to derive the new year's budget. In the first waiver period, this budget was then adjusted by the actual percent of children who were Title IV-E eligible in that year. ODJFS then reconciled those payments once actual control county data was available.[2]

During the first waiver period, particularly in the first years, control counties had high rates of placement day growth, generating more Title IV-E waiver revenue than demonstration counties otherwise would have received. During the second waiver period, placement day utilization of the aggregated group of control counties shrunk, causing demonstration county's waiver payments to go down relative to the prior year.[3] However, demonstration county payments still reflected previous years' growth. As will be shown in Table 7.5, most demonstration counties continued to receive more waiver revenue than they would have under normal reimbursement rules.

Two significant changes to the payment mechanism were put into place with the second waiver.

- A county's actual rate of Title IV-E eligible children no longer figured into the calculation of the waiver payment. Each county was locked in at the eligibility rate they had in federal fiscal year 2004. This change removed one of the sources of uncertainty in the waiver estimation at the beginning of the year and brought more predictability to the waiver payment.
- Only placement days in a "foster care reimbursable setting" were included in the control county's placement day calculations. This excluded, for example, days of care provided in unlicensed relative homes or in group homes that had more than 25 beds. During the first waiver, these days were included and did influence the rate of growth in control county's placement days.

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[1] The control counties are a different group from the comparison counties used for the evaluation, though some counties are in both groups.

[2] While ODFJS sought to avoid overestimating waiver revenue, in some years, demonstration counties received less (after reconciliation) than was originally estimated.

[3] Waiver payments went down in each of the last four fiscal years, by 1.9% in FFY 2005, 0.5% in FFY 2006, 4.66% in FFY 2007 and 0.25% in FFY 2008.

## 7.2 METHODOLOGY

No reliable accounting of total child welfare expenditures or Title IV-E eligible foster care expenditures is easily available from ODJFS. As a result, the fiscal study team used county budget documents and interviews with county officials to collect annual county-level aggregate expenditure data for child welfare services from demonstration and comparison counties. This is the same approach that was used to collect fiscal information in the first waiver period.

The study team collected fiscal data from 2004 through 2008 ($2^{nd}$ to last year of second waiver) for 17 demonstration counties and 17 comparison counties. Hardin County, a new demonstration county, was unable to provide data for the evaluation. While the study team collected expenditure data from Hamilton County, it was not sufficiently reliable in the earlier years of the waiver to be used in the analysis. As a result, the following analyses include 16 demonstration counties (13 original and three new) and 17 comparison counties (14 original, three new).

The data presented are best estimations of program costs for each county rather than an exact accounting of expenditures. Two reasons lie behind this lack of precision: first, counties differed widely in their ability to track expenditures by program type. For example, some line items as reported by the county contained expenditures that spanned multiple expenditure categories. Resolving such difficulties sometimes required estimations, and some counties were better able to resolve certain difficulties than others. Second, counties' ability to interpret expenditure trends also varied significantly. The fiscal study team compiled each county's expenditure data, and presented it to county fiscal staff. Some counties had difficulties interpreting their own historical data, and many had not previously viewed expenditure information in a summarized format designed to show trends over time. Not all counties were able to explain their expenditure trends.

Using the data available to date, the study team examined whether or not the group of demonstration counties showed evidence of different child welfare spending patterns than the comparison counties. If a significant difference in the range of expenditure patterns exists among demonstration counties compared to comparison counties, the team would conclude that it is possible that the differences between the two groups arose because demonstration counties received Title IV-E foster care funds as unrestricted child welfare revenue and comparison counties did not.

The team examined the following dependent variables, which are thought to measure how the counties responded to the waiver stimulus:

- Paid placement days;
- Average daily cost of foster care placement;
- Total foster care expenditures; and
- Foster care expenditures as a percent of all child welfare expenditures.

For each dependent variable listed above, the team examined change in the indicator over time using a time series that included 2004 as a baseline (one year prior to the second waiver) together with data from the years 2005 through 2008 (first four years of the second waiver).[4] For each time series from 2004-2008, the team chose a multi-level regression model called a “Hierarchical Linear Model” or HLM.[5] The team made this choice for two reasons. First, the multilevel model allows the full range of variation in each time series to be examined simultaneously. Second, the model takes into account any within-county correlation (i.e., non-independence of the observations) in the data.[6] For example, in the analysis of foster care expenditures, use of the model reveals whether the linear trend for demonstration counties differs from that of the comparison counties. A significant linear effect would indicate that the underlying pattern of change (in foster care expenditures in this example) was somehow different. The nature of the difference (e.g., demonstration counties reduced spending more quickly) determines whether the indicator supports the null hypothesis (i.e., no effect of the waiver) or not. The team did examine whether measured attributes of the county population (i.e., child poverty rates) added insight regarding changes in expenditure, but the variables studied did not have a significant effect on expenditure changes. Consequently, the final set of models only included time and a demonstration/comparison variable.[7]

## 7.3 FOSTER CARE EXPENDITURES

If counties were to reduce foster care expenditures, they would have to reduce the number of paid placement days, reduce the average daily cost of care, or both. This section presents data on trends in paid placement days, unit costs, and foster care expenditures, as well as the proportion foster care expenditures represented of all child welfare expenditures.

### 7.3.1 Paid Placement Days

Table 7.1 shows counts of paid placement days provided from 2004 to 2008. It also shows the average annual change from 2005 to 2008. For example, Ashtabula reduced paid placement days by an average of 6% per year from 2005 to 2008. During the first four years of the second waiver, about half of the original counties had an average decrease in paid placement days (13 out of 27). Of these, eight were demonstration counties and 5 were comparison counties. Of the remaining 14 counties where the average change was either zero or positive, five were demonstration counties and nine were comparison counties. While the difference in the distribution of average changes was in the direction hypothesized by the theory of the waiver, the differences were not statistically significant when measured by the HLM model. That is, demonstration status was not sufficient to explain the variation in

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[4]In the evaluation of the first waiver (1997-2002), the team summarized each time series with one statistic: a percent change from baseline to the end of the first waiver. The percent change for each county was calculated and sorted, and a statistical test called Tukey's "Quick Test" was applied. Tukey's Quick Test is a nonparametric test used to compare two independent samples to determine if a significant difference in the two samples exists.
See for example Nonparametric Methods for Quantitative Analysis, 3rd Ed. by Jean E. Gibbons, American Science Press, 1997.

[5] Raudenbush, Stephen W., & Bryk, Anthony S. *Hierarchical Linear Models. Applications and Data Analysis Methods.* Sage, 2nd edition, 2002.

[6] The linear function that describes the county expenditure trajectory over time was fit with HLM 6.07 to test whether there was a significant linear effect for demonstration counties relative to the comparison counties.

[7] The table that presents each dependent variable also includes a summary statistic of the average change over the waiver period for each county. In each case the team examined the distribution among demonstration and comparison counties and applied the Tukey’s Quick Test. In no case did the results indicate a significant difference between the two groups.

annual counts of paid placement days. This is consistent with the findings in Chapter 9, where demonstration status was not associated with shorter duration in foster care for children placed for the first time.

| Table 7.1: Annual Counts of Paid Placement Days Provided | | | | | | |
|---|---|---|---|---|---|---|
| **Original Demonstration Counties** | **2004** | **2005** | **2006** | **2007** | **2008** | **Avg. Annual Change 2005-2008** |
| Ashtabula | 33,844 | 33,228 | 34,765 | 30,960 | 26,522 | (6%) |
| Belmont | 15,924 | 14,780 | 12,751 | 12,256 | 13,403 | (4%) |
| Clark | 55,432 | 52,879 | 50,518 | 64,487 | 77,325 | 10% |
| Crawford | 18,454 | 18,399 | 18,450 | 17,786 | 24,609 | 9% |
| Fairfield | 44,654 | 46,079 | 43,179 | 41,948 | 42,493 | (1%) |
| Franklin | 984,562 | 964,839 | 950,173 | 807,333 | 712,311 | (8%) |
| Greene | 38,009 | 39,171 | 41,769 | 40,908 | 41,111 | 2% |
| Lorain | 42,018 | 42,260 | 46,231 | 38,808 | 34,889 | (4%) |
| Medina | 11,574 | 16,082 | 16,383 | 13,034 | 10,356 | 0% |
| Muskingum | 34,046 | 30,059 | 28,952 | 30,375 | 33,439 | 0% |
| Portage | 50,017 | 43,552 | 40,801 | 38,838 | 39,564 | (6%) |
| Richland | 33,476 | 30,613 | 26,862 | 21,691 | 20,646 | (11%) |
| Stark | 251,531 | 246,612 | 245,369 | 212,769 | 178,433 | (8%) |
| Average Demonstration Counties | 124,119 | 121,427 | 119,708 | 105,476 | 96,546 | (2%) |
| **Original Comparison Counties** | | | | | | |
| Allen | 41,976 | 44,010 | 46,068 | 44,267 | 44,205 | 1% |
| Butler | 124,441 | 128,419 | 137,810 | 126,557 | 125,894 | 0% |
| Clermont | 96,139 | 97,382 | 103,531 | 89,067 | 86,342 | (2%) |
| Columbiana | 35,526 | 37,654 | 36,569 | 30,839 | 38,019 | 3% |
| Hancock | 13,737 | 14,935 | 18,061 | 21,808 | 25,453 | 17% |
| Hocking | 14,827 | 18,080 | 17,223 | 15,766 | 14,815 | 1% |
| Mahoning | 77,583 | 77,655 | 82,631 | 82,588 | 83,159 | 2% |
| Miami | 33,164 | 33,899 | 32,974 | 33,780 | 34,014 | 1% |
| Montgomery | 383,692 | 347,552 | 319,259 | 257,349 | 257,256 | (9%) |
| Scioto | 34,819 | 30,960 | 22,572 | 18,686 | 19,001 | (13%) |
| Summit | 380,805 | 377,931 | 360,228 | 297,072 | 253,283 | (9%) |
| Trumbull | 84,732 | 82,239 | 72,790 | 68,072 | 67,732 | (5%) |
| Warren | 25,638 | 25,131 | 31,103 | 20,233 | 22,985 | 0% |
| Wood | 21,154 | 21,952 | 19,782 | 17,756 | 21,352 | 1% |
| Average Comparison Counties | 97,731 | 95,557 | 92,900 | 80,274 | 78,108 | (1%) |
| **New Demonstration Counties** | | | | | | |
| Coshocton | 7,972 | 6,744 | 5,951 | 6,427 | 6,480 | (5%) |
| Highland | 16,006 | 17,285 | 18,105 | 19,134 | 19,721 | 5% |
| Vinton | 9,741 | 9,515 | 8,783 | 5,935 | 6,222 | (9%) |
| **New Comparison Counties** | | | | | | |
| Guernsey | 20,025 | 17,608 | 18,288 | 12,834 | 15,789 | (4%) |
| Morrow | 3,908 | 3,008 | 2,868 | 4,240 | 3,907 | 3% |
| Perry | 15,851 | 14,946 | 16,339 | 13,345 | 13,528 | (3%) |

*Source: FACSIS (2004-2006) and SACWIS (2007, 2008)*

Placement day change among the six new counties was similar for demonstration and comparison groups. Four counties (two demonstration and two comparison) reduced placement days on average. Two counties – one demonstration and one comparison – increased placement days on average.

### 7.3.2 Unit Costs

Table 7.2 shows annual average daily cost of foster care placement (unit costs) from 2004 to 2008. It also shows the average annual change from 2005 to 2008. For example, unit costs in Fairfield grew an average of 4% per year from 2005 to 2008. It should be noted that over the course of the same four years, average annual inflation was 3.3%. During the first four years of the second waiver, seven counties had an average annual decrease in unit costs; five of these counties were demonstration counties and two were comparison counties. Of the 12 counties with average growth in unit costs of greater than four percent, three were demonstration counties and nine were comparison counties. While the difference in the distribution of average changes in unit costs was in the direction hypothesized by the theory of the waiver, the differences were not statistically significant when measured by the HLM model. That is, demonstration status was not sufficient to explain the variation in average daily costs of foster care placement.

Unit cost change in the three new demonstration and three new comparison counties followed a different pattern. Unit costs grew in all three demonstration counties and two out of three comparison counties.

| Table 7.2 Annual Average Daily Cost of Foster Care Placement | | | | | | |
|---|---|---|---|---|---|---|
| **Original Demonstration Counties** | **2004** | **2005** | **2006** | **2007** | **2008** | **Avg. Annual Change 2005-2008** |
| Ashtabula | $78.83 | $52.21 | $63.31 | $72.42 | $83.14 | 4% |
| Belmont | $58.65 | $40.80 | $47.45 | $50.59 | $42.98 | (6%) |
| Clark | $73.04 | $79.99 | $88.13 | $71.53 | $62.24 | (3%) |
| Crawford* | NA | $77.88 | $56.53 | $53.98 | $48.48 | (11%) |
| Fairfield | $30.37 | $31.40 | $28.28 | $31.75 | $34.52 | 4% |
| Franklin | $76.77 | $74.19 | $75.49 | $86.61 | $104.27 | 8% |
| Greene | $66.67 | $65.48 | $62.53 | $68.18 | $74.24 | 3% |
| Lorain | $55.40 | $55.11 | $56.24 | $68.57 | $70.37 | 7% |
| Medina | $85.62 | $67.28 | $75.14 | $90.07 | $74.84 | (2%) |
| Muskingum | $96.37 | $99.14 | $77.75 | $80.99 | $72.13 | (6%) |
| Portage | $61.22 | $57.31 | $67.25 | $79.51 | $80.22 | 8% |
| Richland | $25.48 | $27.67 | $27.29 | $27.75 | $28.82 | 3% |
| Stark | $50.84 | $52.03 | $56.18 | $58.24 | $58.91 | 4% |
| Average Demonstration Counties | $64.40 | $60.04 | $60.12 | $64.63 | $64.24 | 1% |
| **Original Comparison Counties** | | | | | | |
| Allen | $39.17 | $39.99 | $44.09 | $43.62 | $48.77 | 6% |
| Butler | $56.21 | $61.92 | $64.61 | $76.28 | $71.03 | 6% |
| Clermont | $69.65 | $63.94 | $64.18 | $73.94 | $81.99 | 5% |
| Columbiana | $67.44 | $65.46 | $74.08 | $77.73 | $72.22 | 2% |
| Hancock | $48.26 | $50.62 | $46.07 | $53.83 | $59.99 | 6% |
| Hocking | $35.88 | $36.84 | $40.41 | $33.55 | $44.82 | 7% |
| Mahoning | $69.96 | $74.79 | $79.98 | $75.86 | $84.55 | 5% |
| Miami | $61.66 | $62.33 | $60.38 | $63.29 | $66.44 | 2% |
| Montgomery | $45.73 | $48.11 | $50.47 | $61.29 | $61.74 | 8% |
| Scioto | $51.24 | $49.19 | $49.22 | $51.32 | $47.63 | (2%) |
| Summit | $49.02 | $53.20 | $48.18 | $58.04 | $61.99 | 7% |
| Trumbull | $66.09 | $63.42 | $68.28 | $70.41 | $69.63 | 1% |
| Warren | $41.81 | $48.51 | $37.94 | $52.44 | $56.04 | 10% |
| Wood | $89.91 | $85.91 | $99.74 | $89.32 | $73.58 | (4%) |
| Average Comparison Counties | $56.57 | $57.45 | $59.12 | $62.92 | $64.32 | 4% |
| **New Demonstration Counties** | | | | | | |
| Coshocton | $51.18 | $58.13 | $81.33 | $76.86 | $67.44 | 9% |
| Highland | $27.05 | $33.50 | $32.70 | $37.68 | $31.64 | 5% |
| Vinton | $30.70 | $27.43 | $27.67 | $31.00 | $35.52 | 4% |
| **New Comparison Counties** | | | | | | |
| Guernsey | $26.67 | $24.82 | $27.67 | $43.40 | $42.69 | 15% |
| Morrow | $39.15 | $66.82 | $42.19 | $79.48 | $111.34 | 41% |
| Perry | $36.28 | $33.39 | $35.07 | $34.17 | $34.59 | (1%) |

**Because Crawford is missing 2004 unit costs, Crawford's 2005 unit costs are used in the calculation of 2004 average expenditures of the demonstration counties and Crawford's average annual change is from 2006-2008. (Source: PCSA budget documents, FACSIS (2004-2006) and SACWIS (2007, 2008))*

### 7.3.3 Foster Care Board and Maintenance Expenditures

The previous two sections showed that the two components of foster care expenditures – paid placement days and unit costs – trended in the hypothesized direction for demonstration counties but were not significantly different enough from comparison counties to be attributed to waiver participation. In this section, the combination of the two components is presented.

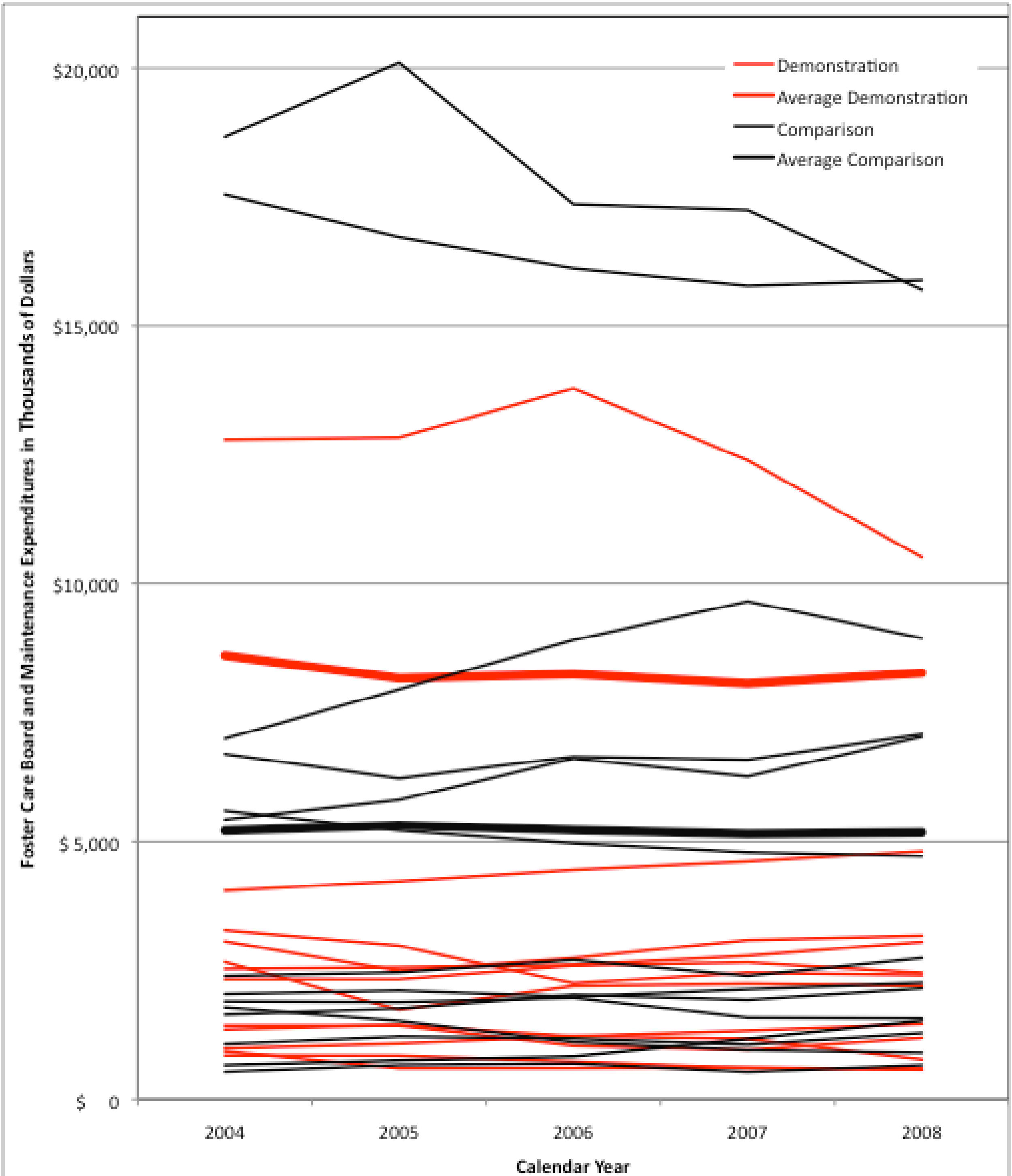
Table 7.3 shows annual foster care board and maintenance expenditures from 2004 to 2008. It also shows the average change from 2005 to 2008. For example, Richland reduced foster care board and maintenance expenditures by an average of 8% per year from 2005 to 2008. During the first four years of the second waiver, 12 counties had an average decrease in foster care board and maintenance expenditures. Of these, seven were demonstration counties and five were comparison counties. Of the nine counties with an average growth in foster care expenditures of 4% or higher, two were demonstration counties and seven were comparison counties. While the difference in the distribution of average changes was in the direction hypothesized, the differences were not statistically significant when measured by the HLM model. That is, demonstration status was not sufficient to explain the variation in foster care board and maintenance expenditures.

Figure 7.1 shows a comparison of trends in foster care board and maintenance expenditures. Franklin County is excluded because its annual expenditure amount of about $75 million is well above the next largest county with expenditures of about $15 million. The figure shows the variation in the amount of annual foster care expenditures across the study groups. It also shows that when demonstration and comparison counties are averaged together, there is not significant change in average expenditures during the years of the study period.

| Table 7.3: Annual Foster Care Board and Maintenance Expenditures in Thousands of Dollars | | | | | | |
|---|---|---|---|---|---|---|
| **Original Demonstration Counties** | **2004** | **2005** | **2006** | **2007** | **2008** | **Avg. Annual Change 2005-2008** |
| Ashtabula | $ 2,668 | $ 1,735 | $ 2,201 | $ 2,242 | $ 2,205 | (2%) |
| Belmont | $ 934 | $ 603 | $ 605 | $ 620 | $ 576 | (10%) |
| Clark | $ 4,049 | $ 4,230 | $ 4,452 | $ 4,613 | $ 4,813 | 4% |
| Crawford* | NA | $ 1,433 | $ 1,043 | $ 960 | $ 1,193 | (3%) |
| Fairfield | $ 1,356 | $ 1,447 | $ 1,221 | $ 1,332 | $ 1,467 | 3% |
| Franklin | $75,589 | $71,577 | $71,731 | $69,921 | $74,273 | 0% |
| Greene | $ 2,534 | $ 2,565 | $ 2,612 | $ 2,789 | $ 3,052 | 5% |
| Lorain | $ 2,328 | $ 2,329 | $ 2,600 | $ 2,661 | $ 2,455 | 2% |
| Medina | $ 991 | $ 1,082 | $ 1,231 | $ 1,174 | $ 775 | (4%) |
| Muskingum | $ 3,281 | $ 2,980 | $ 2,251 | $ 2,460 | $ 2,412 | (7%) |
| Portage | $ 3,062 | $ 2,496 | $ 2,744 | $ 3,088 | $ 3,174 | 2% |
| Richland | $ 853 | $ 847 | $ 733 | $ 602 | $ 595 | (8%) |
| Stark | $12,788 | $12,830 | $13,786 | $12,391 | $10,511 | (4%) |
| Average Demo Counties | $ 8,605* | $ 8,166 | $ 8,247 | $ 8,066 | $ 8,269 | (2%) |
| **Original Comparison Counties** | | | | | | |
| Allen | $ 1,644 | $ 1,760 | $ 2,031 | $ 1,931 | $ 2,156 | 7% |
| Butler | $ 6,995 | $ 7,952 | $ 8,904 | $ 9,654 | $ 8,942 | 7% |
| Clermont | $ 6,696 | $ 6,227 | $ 6,645 | $ 6,586 | $ 7,079 | 2% |
| Columbiana | $ 2,396 | $ 2,465 | $ 2,709 | $ 2,397 | $ 2,746 | 4% |
| Hancock | $ 663 | $ 756 | $ 832 | $ 1,174 | $ 1,527 | 24% |
| Hocking | $ 532 | $ 666 | $ 696 | $ 529 | $ 664 | 8% |
| Mahoning | $ 5,428 | $ 5,808 | $ 6,609 | $ 6,265 | $ 7,031 | 7% |
| Miami | $ 2,045 | $ 2,113 | $ 1,991 | $ 2,138 | $ 2,260 | 3% |
| Montgomery | $17,545 | $16,719 | $16,113 | $15,774 | $15,884 | (2%) |
| Scioto | $ 1,784 | $ 1,523 | $ 1,111 | $ 959 | $ 905 | (15%) |
| Summit | $18,667 | $20,105 | $17,357 | $17,243 | $15,701 | (4%) |
| Trumbull | $ 5,600 | $ 5,216 | $ 4,970 | $ 4,793 | $ 4,716 | (4%) |
| Warren | $ 1,072 | $ 1,219 | $ 1,180 | $ 1,061 | $ 1,288 | 5% |
| Wood | $ 1,902 | $ 1,886 | $ 1,973 | $ 1,586 | $ 1,571 | (4%) |
| Average Comp Counties | $ 5,212 | $ 5,315 | $ 5,223 | $ 5,149 | $ 5,176 | 3% |
| **New Demonstration Counties** | | | | | | |
| Coshocton | $ 408 | $ 392 | $ 484 | $ 494 | $ 437 | 3% |
| Highland | $ 433 | $ 579 | $ 592 | $ 721 | $ 624 | 11% |
| Vinton | $ 299 | $ 261 | $ 243 | $ 184 | $ 221 | (6%) |
| **New Comparison Counties** | | | | | | |
| Guernsey | $ 534 | $ 437 | $ 506 | $ 557 | $ 674 | 7% |
| Morrow | $ 153 | $ 201 | $ 121 | $ 337 | $ 435 | 50% |
| Perry | $ 575 | $ 499 | $ 573 | $ 456 | $ 468 | (4%) |

**Because Crawford is missing 2004 expenditures, Crawford's 2005 expenditures are used in the calculation of 2004 average expenditures of the demonstration counties and Crawford's average annual change is from 2006-2008. (Source: PCSA budget documents)*

**Figure 7.1: Comparison of Trends in Foster Care Board and Maintenance Expenditures in Thousands of Dollars***




**Franklin, the largest county, is not displayed.*

### 7.3.4 Foster Care as a Portion of Total Child Welfare Spending

How did the proportion of foster care board and maintenance expenditures, as a percent of total child welfare expenditures, change during the waiver period? The proportion of foster care board and maintenance expenditures relative to all child welfare expenditures could decrease by increasing all other child welfare expenditures, decreasing foster care expenditures, or some combination of the two. Table 7.4 shows what percent foster care board and maintenance expenditures were of all child welfare expenditures from 2004-2008 (see Appendix E.1 for all other child welfare expenditures by county, for 2004-2008.) For example, in the year prior to the second waiver, Medina's foster care board and maintenance expenditures accounted for 33% of child welfare expenditures. In 2008, foster care expenditures accounted for 23% of all child welfare expenditures in Medina. In most counties during this period, average annual foster care expenditures as a share of total child welfare expenditures decreased. Two demonstration counties (Belmont and Richland) had the largest decrease in foster care expenditures as a share of all child welfare expenditures. Two comparison counties (Hancock and Hocking) had the largest increase in foster care expenditures as a share of all child welfare expenditures.

The difference in the distribution of average annual changes was in the direction hypothesized, and the difference was statistically significant when measured by the HLM model. That is, demonstration status did have a significant association with decreases in the proportion of child welfare expenditures spent on foster care board and maintenance. Among the seven demonstration counties that reduced foster care board and maintenance expenditures (Table 7.3), six out of seven also increased all other child welfare expenditures (Appendix E.1). Among the six counties where the relative increase in foster care expenditures was greater than all other child welfare expenditures, five were comparison counties.

| Table 7.4 Annual Foster Care Board and Maintenance Expenditures as Percent of All Child Welfare Expenditures | | | | | | |
|---|---|---|---|---|---|---|
| **Original Demonstration Counties** | **2004** | **2005** | **2006** | **2007** | **2008** | **Avg. Annual Change 2005-2008** |
| Ashtabula | 40% | 29% | 33% | 33% | 32% | (4%) |
| Belmont | 28% | 19% | 16% | 15% | 17% | (11%) |
| Clark | 35% | 37% | 36% | 37% | 37% | 1% |
| Crawford* | NA | 61% | 49% | 43% | 47% | (6%) |
| Fairfield | 30% | 31% | 25% | 25% | 25% | (4%) |
| Franklin | 48% | 45% | 44% | 42% | 44% | (2%) |
| Greene | 41% | 41% | 38% | 38% | 37% | (2%) |
| Lorain | 17% | 16% | 15% | 14% | 13% | (7%) |
| Medina | 33% | 35% | 36% | 33% | 23% | (8%) |
| Muskingum | 46% | 45% | 40% | 39% | 41% | (3%) |
| Portage | 50% | 40% | 38% | 41% | 39% | (6%) |
| Richland | 12% | 11% | 9% | 7% | 7% | (11%) |
| Stark | 52% | 50% | 47% | 43% | 38% | (7%) |
| Average Demonstration Counties | 36% | 35% | 33% | 31% | 31% | (5%) |
| **Original Comparison Counties** | | | | | | |
| Allen | 33% | 33% | 34% | 32% | 33% | (1%) |
| Butler | 37% | 35% | 35% | 36% | 32% | (3%) |
| Clermont | 74% | 66% | 67% | 64% | 63% | (4%) |
| Columbiana | 61% | 68% | 61% | 56% | 61% | 1% |
| Hancock | 33% | 35% | 36% | 44% | 50% | 11% |
| Hocking | 34% | 38% | 36% | 28% | 39% | 6% |
| Mahoning | 43% | 42% | 45% | 43% | 44% | 1% |
| Miami | 53% | 52% | 50% | 52% | 51% | (1%) |
| Montgomery | 38% | 36% | 33% | 32% | 32% | (4%) |
| Scioto | 46% | 42% | 35% | 31% | 32% | (8%) |
| Summit | 36% | 39% | 35% | 34% | 32% | (3%) |
| Trumbull | 39% | 37% | 36% | 34% | 33% | (4%) |
| Warren | 30% | 31% | 29% | 28% | 31% | 1% |
| Wood | 56% | 56% | 53% | 49% | 48% | (4%) |
| Average Comparison Counties | 44% | 44% | 42% | 40% | 41% | (1%) |
| **New Demonstration Counties** | | | | | | |
| Coshocton | 28% | 26% | 31% | 27% | 25% | (2%) |
| Highland | 28% | 33% | 37% | 38% | 38% | 8% |
| Vinton | 26% | 25% | 24% | 18% | 22% | (2%) |
| **New Comparison Counties** | | | | | | |
| Guernsey | 22% | 17% | 18% | 18% | 21% | 0% |
| Morrow | 10% | 11% | 7% | 19% | 23% | 44% |
| Perry | 30% | 25% | 27% | 26% | 27% | (2%) |

**Because Crawford is missing 2004 expenditures for both foster care board & maintenance and overall child welfare spending, Crawford's 2005 data are used in the calculation of 2004 average proportion of foster care expenditures for the demonstration counties and Crawford's average annual change is from 2006-2008.*

## 7.4 WAIVER REVENUE AND SPENDING

To estimate the amount of additional revenue each demonstration county received to spend on services other than foster care board and maintenance, the fiscal study team estimated the amount of Title IV-E reimbursement a county would have received for foster care expenditures during 2005-2008. This amount was compared to the actual waiver award to determine how much was left over for flexible spending after paying what would have been the federal share of foster care board and maintenance.

For all demonstration counties except Ashtabula, Franklin and Portage, the fiscal study team estimated what the county would have received in absence of the waiver by multiplying total foster care expenditures by the county's average annual Title IV-E eligibility rate and the federal Title IV-E participation rate. According to these calculations, almost all the demonstration counties received more Title IV-E revenue through the waiver than they would have received through normal Title IV-E reimbursement given actual utilization of foster care. Table 7.5 displays the total estimated amount of additional ProtectOhio revenue received from 2005 to 2008 for each demonstration county. As the table shows, all counties except Franklin received waiver awards in excess of what they would otherwise have received through Title IV-E reimbursement. Taken together, demonstration counties had an additional $27.9 million to spend on non-foster care services during the four years of the second waiver.

**Table 7.5 Estimates of ProtectOhio Revenue Available for Flexible Spending (in Thousands of Dollars)**

| County | Estimated Title IV-E Foster Care B&M Reimbursement in Absence of Waiver, 2005-2008 | ProtectOhio Waiver Revenue 2005-2008 | Total ProtectOhio Revenue Available for Non-Foster Care Services 2005-2008 |
|---|---|---|---|
| Ashtabula** | $ 649 | $ 3,339 | $ 2,690 |
| Belmont | $ 885 | $ 2,658 | $ 1,773 |
| Clark | $ 8,199 | $11,352 | $ 3,153 |
| Crawford | $ 1,722 | $ 3,155 | $ 1,433 |
| Fairfield | $ 1,700 | $ 1,821 | $ 121 |
| Franklin** | $100,563 | $87,721 | $ 0 |
| Greene | $ 3,980 | $ 4,430 | $ 450 |
| Lorain | $ 4,828 | $10,699 | $ 5,871 |
| Medina | $ 1,275 | $ 1,505 | $ 230 |
| Muskingum | $ 3,682 | $ 5,392 | $ 1,710 |
| Portage** | $ 4,445 | $ 8,085 | $ 3,640 |
| Richland | $ 1,055 | $ 5,828 | $ 4,773 |
| Stark | $22,458 | $24,164 | $ 1,706 |
| Coshocton* | $ 251 | $ 287 | $ 36 |
| Highland* | $ 363 | $ 406 | $ 43 |
| Vinton* | $ 153 | $ 287 | $ 134 |
| Total | $156,208 | $171,537 | $27,934 |

**Data for new demonstration counties for 2007 and 2008 only.*

***Ashtabula, Franklin and Portage provided their own estimates of expenditures eligible for foster care board and maintenance reimbursement.*

How did demonstration county officials spend their additional waiver revenue? Table 7.6 compares revenue available for flexible spending to the total growth in non-foster care services spending over the four years. If all other child welfare expenditures *did not* grow more than the amount of additional waiver revenue, then the study team can infer that demonstration counties used additional waiver revenue to pay for the local share of foster care or retained waiver revenue for future spending.

For example, the fiscal study team estimated that Clark County had $3.15 million in flexible revenue available during the first four years of the waiver. In those same years, Clark County increased all other child welfare expenditures by $1.35 million compared to 2004.[8] As a result, Clark spent $1.35 million of its waiver revenue on non-foster care services and had $1.8 million left over to pay the local share of foster care or retain the revenue for future spending.

Eleven of the 12 counties that received additional revenue as a result of waiver participation applied at least some of the additional waiver revenue to child welfare expenditures other than foster care. Seven out of these 11 counties spent all additional waiver revenue on non-foster care services. Out of $27 million available, an estimated $22 million was spent on non-foster care services. In other words, demonstration counties used most of the additional waiver revenue to support expansion in county staff and programs and family and community-based services. As a result, the fiscal study team concludes that demonstration counties did increase the variation in services supported by Title IV-E funds beyond foster care board and maintenance.

**Table 7.6 Use of ProtectOhio Revenue Available for Flexible Spending (in Thousands of Dollars)**

| County | Total revenue available for non-foster care services 2005-2008 | Total change in non-foster care services spending 2005-2008 compared to 2004 | Revenue spent on non-foster care services 2005-2008 | Remaining revenue 2005-2008 |
|---|---|---|---|---|
| Ashtabula | $ 2,690 | $ 1,979 | $ 1,979 | $ 711 |
| Belmont | $ 1,773 | $ 2,804 | $ 1,773 | $ 0 |
| Clark | $ 3,153 | $ 1,354 | $ 1,354 | $ 1,799 |
| Crawford | $ 1,433 | $ 1,028 | $ 1,028 | $ 405 |
| Fairfield | $ 121 | $ 2,568 | $ 121 | $ 0 |
| Greene | $ 450 | $ 3,389 | $ 450 | $ 0 |
| Lorain | $ 5,871 | $15,025 | $ 5,871 | $ 0 |
| Medina | $ 230 | $ 1,203 | $ 230 | $ 0 |
| Muskingum | $ 1,710 | ($ 786) | $ 0 | $ 1,710 |
| Portage | $ 3,640 | $ 5,664 | $ 3,640 | $ 0 |
| Richland | $ 4,773 | $ 4,178 | $ 4,178 | $ 595 |
| Stark | $ 1,706 | $13,599 | $ 1,706 | $ 0 |
| Total | $27,550 | $52,005 | $22,330 | $ 5,220 |

**Original demonstration counties only. Franklin is excluded because it did not have any flexible revenue available.*

[8] The total increased spending on non-foster care services is the sum of each year's spending that was higher than the 2004 base year; for example, if 2004 spending was $7.4 million and 2005 was $7.8 million, the increase was $0.4 million; summing the increases for each of the four years 2005-2008 yields the total increased spending.

## 7.5 DISCUSSION

Each of the four dependent variables measured is an indicator or signal that would be expected to change in response to an underlying effect. For example, choices to place more children with relatives rather than in paid foster care would reduce foster care days, and in turn, reduce foster care expenditures. Counties that closed underutilized county homes would reduce unit costs. Other counties might reduce days by diverting more cases to in-home services. At the same time, some choices or circumstances would lead to increases in one of the data elements. For example, in small counties, one or two high-need children placed in foster care would cause a significant swing in unit costs during the period they were placed. Some counties could choose to increase board and maintenance payments. And there are many other factors other than the waiver that could cause variation in the elements of foster care expenditures and other child welfare expenditures.

The hypothesis underlying the ProtectOhio Waiver is that a variety of these types of changes would have occurred in both demonstration and comparison counties in the absence of the waiver, but that, among waiver counties, more changes that shifted expenditures from foster care to other child welfare expenditures would take place. Table 7.7 summarizes the findings of the fiscal analysis. The analysis shows that the presence of the waiver was associated with a reduction in the proportion of child welfare expenditures spent on foster care board and maintenance. This reduction was caused by a combination of reductions in foster care board and increases in spending on other child welfare services, such as expansion in county staff and programs and family and community-based services. These increases were funded in part by waiver revenue. As a result, demonstration counties did increase the variation in services supported by Title IV-E funds beyond foster care board and maintenance. Given the variety of operating environments for both demonstration and comparison counties, it is an important finding that the waiver stimulus distinguished the groups in this way.

**Table 7.7 Summary of Fiscal Analysis Findings**

| Dependent Variable | Hypothesized Change Due to Waiver | Findings of Fiscal Analysis | Statistically Significant? |
|---|---|---|---|
| Number of Paid Placement Days | Decline | Decline | No |
| Average Daily Cost of Foster Care Placement | Probably Decline[9] | Decline | No |
| Total Foster Care Expenditures | Decline | Decline | No |
| Proportion of Child Welfare Expenditures Spent on Foster Care | Decline | Decline | Yes |
| *In addition, most demonstration counties spent some or all additional Waiver revenue on child welfare services other than foster care, rather than using that revenue to offset the local share of foster care expenditures or to retain for future use on child welfare or non-child welfare programs.* | | | |

[9] The average daily cost of foster care could increase as a result of the waiver stimulus if the mix of children needing higher cost care went up as children with fewer needs were not placed in foster care at all. However, the more likely effect is that counties would reduce the use of higher cost placements and decrease the average daily cost of care.

When asked to discuss the impacts of the waiver stimulus on the county's operations and programming, nearly all fiscal staff gave examples of the benefits of the waiver's fiscal structure (15 out of 16). Benefits cited included:

- Supported a better way of choosing services for children and families;
- Made possible investments in up-front services and other services to reduce placement;
- Allowed county to generate revenue by "doing the right thing" – minimizing placement;
- Was an important support for the agency's philosophical focus on minimizing placement;
- Supported the use of waiver strategies, like family-team meetings;
- Made Title IV-E revenue more predictable and therefore easier to invest in a new mix of services.

Three counties cited concerns about the waiver:

- Lack of growth in revenue in recent years;
- Fairness of the initial waiver allocation and the lack of adjustments for population growth in the last 12 years;
- Receiving less Title IV-E revenue through the waiver than the county would have received under normal Title IV-E reimbursement.

These comments, taken with the findings, suggest that the majority of counties in the demonstration both understood and were able to take advantage of the opportunities offered by receiving Title IV-E board and maintenance revenue as flexible funding during this time period.

The strength of the waiver's impact on foster care utilization is less clear than its impact on the proportion of child welfare expenditures spent on foster care. The fiscal analysis showed that the waiver was not associated with a reduction (relative to comparison counties) in annual counts of foster care days at a statistically significant level, though the change was in the hypothesized direction. The analysis of the duration of first foster care placements to be presented in Chapter 9 showed similar results. The Placement Outcomes Analysis did not find a statistically significant difference in the duration of first foster care placements in demonstration and comparison counties. However, the effect for the majority of demonstration counties (Belmont, Hamilton and Fairfield are the exceptions) pointed in the right direction (reduced duration). Taken together, the results of these analyses suggest that the expectations for a *general* effect of the stimulus of the waiver on foster care utilization should be minimal. However, it would also be reasonable to expect that a subset of counties or jurisdictions would reduce foster care utilization as a result of receiving Title IV-E board and maintenance revenue as flexible child welfare funding.