



## Research Bulletin

# State Court Backlogs in Illinois and the United States

**N**ationwide, backlogs in state court systems are growing at an alarming rate. At 8 percent or more of output capacity, the average annual shortfall for combined criminal and civil caseloads is extremely high. This problem is far more serious in state court systems than it is in the federal court system. In addition, the interdependence among courts and other criminal justice agencies suggests that law enforcement, prosecution, public defense, and jail and detention facilities are probably facing caseload problems of a similar magnitude.

The Illinois Criminal Justice Information Authority's analysis of annual data gathered by the Conference of State Court Administrators<sup>1</sup> has found that state courts are not only failing to bring existing backlog under control, they are rapidly falling even farther behind (although Illinois is doing a better job than most large states at controlling new backlog). The evidence is compelling that the capacity of state courts nationwide to deal with caseload in a timely manner is simply inadequate. Nearly one-twelfth (8.2 percent) of all incoming

criminal and civil caseload between 1986 and 1988 was added to existing backlogs.

Not only are court systems falling behind at an alarming rate, but the development of court backlog appears to be associated with population shifts in some instances.<sup>2</sup> Although the size of a court's backlog is idiosyncratic,<sup>3</sup> state court systems with rapidly increasing backlogs share certain characteristics, including statewide population growth.<sup>4</sup> When the Authority focused on only new backlog (shortfalls), not existing backlog, it became clear that the states with the largest population growth rates from 1986 through 1988 had the largest rate of growth in new backlog rates as well. This relationship suggests that it may be necessary to rethink court-related strategic planning and funding prioritization strategies. The link also suggests several important new directions for research aimed at assisting law enforcement, prosecution, defense, corrections, and the courts cope with mounting caseloads.<sup>5</sup>

The Authority examined national court caseload data for 1986, 1987, and 1988.<sup>6</sup> This report describes national state court caseload trends for that period and state-by-state trends, with emphasis on the 10 most populous states including Illinois.

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To learn more about the complex workload relationships among the various agencies of the criminal justice system, the Illinois Criminal Justice Information Authority is conducting an ongoing study of state court caseload data, one of the first to comprehensively examine trends in Illinois and throughout the country. The initial inquiry was based largely on data gathered annually by the Conference of State Court Administrators, with funding from the State Justice Institute. The Authority examined state court caseload data for three years, 1986 through 1988, for 45 states, Puerto Rico, and the District of Columbia, focusing on the 10 most populous states, including Illinois. Among the findings summarized in this research bulletin is a demonstrable correlation between a state's population growth and the rate at which new cases are added to court backlogs.

### The national picture

Between 1986 and 1988, rising national state court backlogs added 3.6 months to average criminal case processing time, and 2.7 months to average civil case processing time (Figure 1). State court backlogs nationwide increased by 5.5 million criminal and civil cases during the three-year period, and other studies have shown that median civil processing time is a year and a half or more in many courts.<sup>7</sup> If present trends continue, it will take an additional year or more to terminate the average criminal or civil case in state courts in the year

2000 (Figure 2).

Although the federal courts are also facing backlog problems, the prospects for timely case termination at the federal level by the end of the 1990s seem far better than those for state trial courts (Figure 3). If 1986 through 1988 trends continue, federal case processing (combined civil and criminal) will slow by 1.1 months by the year 2000,<sup>9</sup> while average state court civil and criminal case processing will slow by 12.2 months. Case processing timeliness is decaying 11 times faster at the state level than at the federal level. By the year 2010, a 10-year judicial career may not be long enough in many courts to terminate the very first civil case assigned to a new judge, if that case goes to trial.<sup>9</sup>

### National caseload shortfalls

Perhaps the most visible evidence of the extent and

seriousness of increasing court backlogs is the number of jurisdictions that failed to clear their calendars during the 1986–1988 period (that is, they did not terminate at least as many cases as were filed and ended the year with a shortfall).<sup>10</sup> Seventy-four (88.1 percent) of the 84 criminal jurisdictions included in the Authority's study failed to terminate at least as many cases as were filed from 1986 through 1988. Of the 10 criminal jurisdictions that cleared their calendars during that three-year period, only three (3.6 percent) cleared their calendars each year. Similarly, 76 (83.5 percent) of the 91 civil jurisdictions studied did not terminate at least as many cases as were filed during the combined three-year period. Of the 15 civil jurisdictions that cleared their calendars during that period, only six (6.6 percent) cleared their calendars each year. Jurisdictions that were able to clear their calendars did so by relatively small margins, whereas those with shortfalls (fewer terminations than filings) often had extremely large shortfalls.<sup>11</sup>

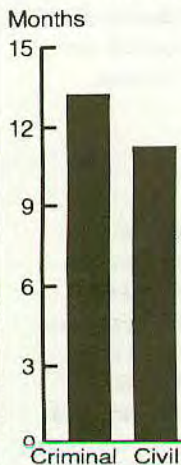
When all juvenile and traffic cases are added to the criminal and civil caseload, one-eighth (12.5 percent) of the nation's trial court caseload was added to existing backlogs each year from 1986 through 1988 (Figure 4). That is equivalent to closing every court in the country for

FIGURE 1  
Actual and estimated increases in average case processing times, in months

Period	Criminal	Civil	Criminal and civil	All types
1986–1988	3.6	2.7	3.1	5.0
1986–2000	13.2	11.3	12.2	21.1
1986–2010	17.6	16.3	17.0	30.7

Note: Projections are based on 1986 through 1988 trends. Estimates of increased delay are computed by dividing accrued (emerging) backlog by the projected termination rate (output capacity). "All types" includes juvenile and traffic cases.

FIGURE 2  
National delay growth: estimated additional time to terminate average state court case in the year 2000



Note: Increases estimated from 1988 case processing times.

FIGURE 3  
National delay growth: estimated additional time to terminate criminal and civil cases in the year 2000

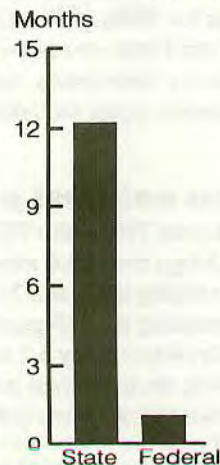


FIGURE 4  
National state court caseload shortfalls

Criminal Year	Filings	Terminations	Average shortfall
1986	8,832,573	7,992,699	9.5
1987	9,311,499	8,382,443	10.0
1988	9,829,762	8,929,732	9.2
Total	27,973,834	25,304,874	9.5

Civil Year	Filings	Terminations	Average shortfall
1986	12,577,502	11,466,954	8.8
1987	12,874,653	11,926,040	7.4
1988	13,433,444	12,666,928	5.7
Total	38,885,599	36,059,922	7.3

Criminal and civil Year	Filings	Terminations	Average shortfall
1986	21,410,075	19,459,653	9.1
1987	22,186,152	20,308,483	8.5
1988	23,263,206	21,596,660	7.2
Total	66,859,433	61,364,796	8.2

All types Year	Filings	Terminations	Average shortfall
1986	75,429,069	65,443,475	13.2
1987	77,378,339	68,088,691	12.0
1988	79,978,758	70,235,446	12.2
Total	232,786,166	203,767,612	12.5

Note: Although not shown separately, "clearance" percentages can be obtained by subtracting the percentage shortfall from 100 (for example, combined criminal and civil clearance averaged  $100 - 8.2 = 91.8$  percent during the period). "All types" includes juvenile and traffic cases.

a month and a half each year without stopping the flow of incoming cases. The three-year period saw 9.5 percent of all criminal filings and 7.3 percent of all civil filings added to backlogs annually.

### What *didn't* cause court shortfalls?

State trial courts fell behind from 1986 through 1988 at a rapid pace. At the same time, although speedy trial laws are thought to influence the prioritization of non-criminal cases, there was no detectable shift in workload priority or emphasis between criminal and civil calendars. Criminal calendars had a collective shortfall of 9.5 percent in 1986, 10 percent in 1987, and 9.2 percent in 1988. On the other hand, civil shortfall was lower in 1988 (5.7 percent) than in either 1986 (8.8 percent) or 1987 (7.4 percent).

In addition, shortfalls cannot be attributed to an explosion in filings. Average criminal caseloads increased by 5.6 percent per year during the period. Civil caseloads rose more modestly at 3.4 percent per year. Combined criminal and civil filing growth was just 4.3 percent per year, while filing growth for all types of cases was 3 percent per year (Figure 5). The average annual increase in criminal (5.9 percent) and civil (5.2 percent) terminations was higher than the average annual increase in filings (5.6 percent and 3.4 percent, respectively), although the magnitude of the difference was not large.

### Shortfalls and population growth

The nation's 10 most populous states accounted for 135.5 million (54.4 percent) of the nation's 248.7 million inhabitants in 1990.<sup>12</sup> The same 10 states reported 62.2 percent of all of the criminal and civil filing data used in the study. Five smaller states were excluded from the analysis (Massachusetts, Mississippi, Montana, Nevada, and South Dakota) because of incomplete caseload data,<sup>13</sup> making the population base 237.4 million. As a result, the 10 most populous states accounted for 57.1 percent of the study population (Figure 6).<sup>14</sup>

More than three-quarters (76.2 percent) of all new criminal and civil backlog in the 45 state courts studied originated in the 10 most populous states between 1986 and 1988.<sup>15</sup> Fifty-nine percent of the new backlog was concentrated in three of the 10 most populous states: California, Texas, and Florida. Those three states also had the largest percentage increase in *population* over the three-year period (Figure 7).

Slow-growth northeastern states (New Jersey, New York, and Pennsylvania) and slow-growth midwestern states (Illinois, Michigan, and Ohio) had the slowest population growth and the slowest growth in court backlog.<sup>16</sup> States with greater population growth had larger percentage increases in their shortfalls<sup>17</sup> than slow-growth states,<sup>18</sup> perhaps reflecting a diminished capacity to deal with incoming caseload.<sup>19</sup>

FIGURE 5  
Case filing and termination growth rates nationwide

Criminal		
Year	Filing growth rate	Termination growth rate
1986-1987	5.4%	4.9%
1987-1988	5.6	6.5
Average	5.6	5.9
Civil		
Year	Filing growth rate	Termination growth rate
1986-1987	2.4%	4.0%
1987-1988	4.3	6.2
Average	3.4	5.2
Criminal and civil		
Year	Filing growth rate	Termination growth rate
1986-1987	3.6%	4.4%
1987-1988	4.9	6.3
Average	4.3	5.5
All types		
Year	Filing growth rate	Termination growth rate
1986-1987	2.6%	4.0%
1987-1988	3.4	3.2
Average	3.0	3.7

Note: "All types" includes juvenile and traffic cases.

### State-by-state data

Three of the 10 largest states actually did not have shortfalls for particular types of cases. Illinois and Ohio terminated more criminal cases between 1986 and 1988 than were filed, and Michigan terminated more civil cases than were filed (Figure 8). But when criminal and civil caseloads were combined, none of the 10 largest states kept up with incoming caseloads, and the combined average rate of shortfall exceeded the national average substantially. Texas (28 percent, criminal) and California

(23.3 percent, civil) had the largest shortfalls over the three-year period. More than 10 percent of all civil and criminal caseload was added to existing backlogs in the 10 largest states during this time. Those states accounted for 77.7 percent of all new criminal backlog and 74.8 percent of all new civil backlog.

Of the 10 largest states, Ohio did the best job of preventing new backlog. It terminated all but 0.2 percent of its combined

FIGURE 6  
The 10 most populous states in 1990

	Millions of people
California	29.8
New York	18.0
Texas	17.0
Florida	12.9
Pennsylvania	11.9
Illinois	11.4
Ohio	10.8
Michigan	9.3
New Jersey	7.7
North Carolina	6.6

Source: U.S. Bureau of the Census

FIGURE 7

**Population and backlog trends: criminal and civil combined caseload, 1986-1988**

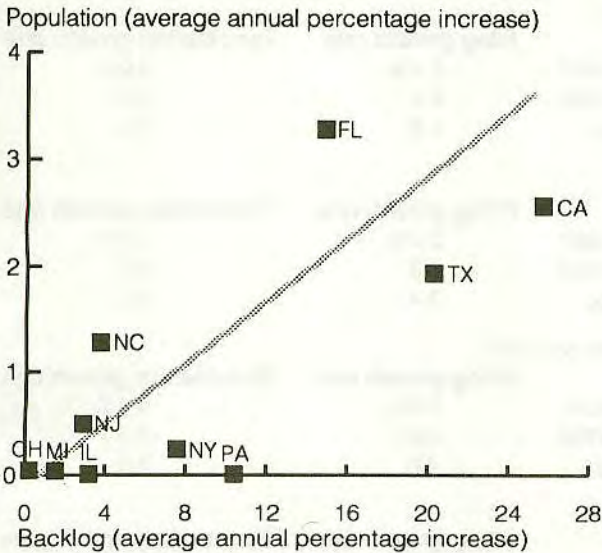


FIGURE 8

**Percentage shortfall for the 10 most populous states, 1986-1988**

State	Criminal	Civil	Combined
Ohio	-1.6	1.3	0.2
Michigan	4.7	-0.2	1.5
New Jersey	6.6	0.5	2.9
Illinois	-0.2	6.0	3.1
North Carolina	2.8	4.4	3.6
New York	6.5	7.3	7.0
Pennsylvania	13.0	2.7	9.4
Florida	13.2	12.8	13.0
Texas	28.0	3.8	16.9
California	15.4	23.3	20.4
<b>Ten largest</b>	<b>11.5</b>	<b>9.0</b>	<b>10.1</b>
<b>National</b>	<b>9.5</b>	<b>7.3</b>	<b>8.2</b>

Note: States ranked by total criminal and civil shortfall during the three-year period.

criminal and civil caseload. North Carolina, which had one of the fastest population growth rates during the 1980s, at 12.8 percent, had a modest shortfall of 3.6 percent between 1986 and 1988. That was higher than the shortfall in most of the industrial states, but well behind that in the Sun Belt states.

**Emerging backlog**

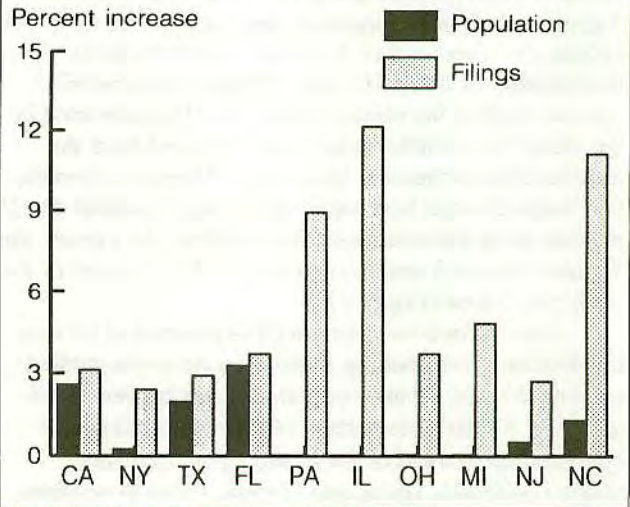
The "emerging" backlog concept provides the link between population and backlog growth. Emerging backlog is the *rate* at which new backlog (shortfall) is added to existing backlog. It can be expressed as a "backlog trend," or rate of growth. As such, it quantifies the rate at which new backlog is being created as a percentage of average annual output. Existing backlog is ignored when the emphasis is on emerging backlog, because existing backlog is essentially an artifact of past performance. The life cycle of an existing backlog depends to a great extent on resource availability and other factors, and neither the size nor the life cycle of an existing backlog has been shown to be predictable from system to system.

**Population, filing growth, and backlog**

Although population growth is undoubtedly an important element in the caseload equation, the precise nature of the relationship has not been firmly established. Backlog growth was highly correlated with population growth from 1986 through 1988, but filing growth was not (Figure 9).<sup>20</sup> No generally accepted theoretical framework has thus far linked population shifts to the development of court backlog.

FIGURE 9

**Growth trend in civil and criminal case filings and in population, 1986-1988**



Intuitively, one might expect to find a more or less direct relationship between the number of cases filed and population growth. But this study did not find a direct relationship between the two. In order for filing growth to be linearly correlated with population growth, per-capita filing rates must remain relatively constant. The results of this research, as well as the research of others, suggest that per-capita filing rates fluctuate widely over time.<sup>21</sup>

Indeed, the per-capita filing rate (per 1,000 people) rose between 1986 and 1988 nationwide, and in the 10

FIGURE 10

**Per-capita case filings, combined criminal and civil cases**

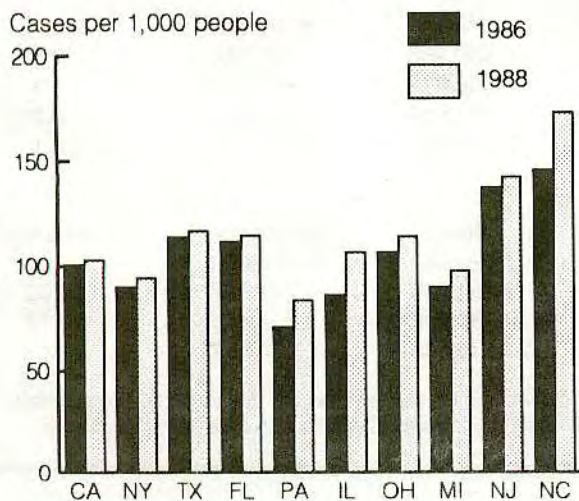
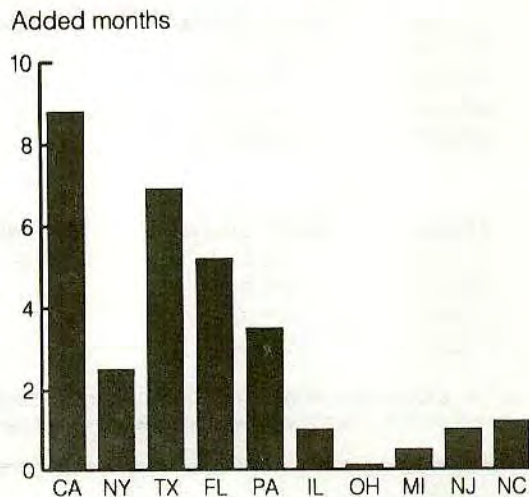


FIGURE 11

**Accumulated criminal and civil case backlog, 1986-1988**



most populous states (Figure 10). The four largest states had fairly modest per-capita filing increases compared with the other top 10 states. North Carolina, in particular, had a substantial increase in per-capita filings.

Overall, average criminal (6.2 percent) and civil (3.7 percent) filing growth in the 10 largest states exceeded the national average between 1986 and 1988. Comparable national rates were 5.6 percent and 3.4 percent, respectively.

North Carolina (13.6 percent), Pennsylvania (11.1 percent), and Illinois (10.1 percent) had by far the highest average annual criminal filing increases, while Illinois (14 percent) was the only state of the 10 to have a double-digit civil increase. Combined criminal and civil filing increases were highest in Illinois (12.1 percent) and North Carolina (11.1 percent).

**Illinois caseload trends**

Compared with other jurisdictions, Illinois caseload trends are encouraging (Figure 11). On average, Illinois courts performed better from 1986 through 1988 than did the 10 largest states as a group, and better than the nation as a whole. Illinois had the largest combined criminal and civil filing growth rate of the top 10 (see Figure 9), but it had the fourth lowest shortfall during the period. The state's nearly flat population growth rate (an average of 0.01 percent annually) may have contributed to the favorable outcome, but even states with more favorable conditions did not fare as well. Pennsylvania, for example, is nearly identical to Illinois in population size, and its population grew at the same average annual rate (0.01 percent). Even with a lower filing growth rate (8.9 percent), Pennsylvania still had a shortfall (9.4 percent)

three times higher than that of Illinois (3.1 percent). Ohio (0.2 percent), Michigan (1.5 percent), and New Jersey (2.9 percent) all had more modest shortfalls than Illinois, but those states did not have to contend with the unusually high filing growth rates experienced in Illinois.

Illinois courts met the challenge of sharply rising caseloads during the period with a similarly large increase in total output (Figure 12). Combined criminal and civil case terminations rose an average of 10.1 percent per year during the period, nearly double the national rate (5.5 percent), and substantially higher than the rate for the 10 largest states (5.9 percent). Only North Carolina (an average of 11.1 percent per year) had a higher termination growth rate than did Illinois, among the 10 largest states.

Because the present study does not deal with existing backlogs, only emerging backlog, it should not be interpreted as finding that backlog as a whole is not a problem in Illinois or elsewhere. States like Illinois seem to have begun to bring caseload shortfalls under control, but that does not mean that existing backlogs do not continue to be a problem. In fact, the speed with which cases move from filing to disposition depends to a large extent on the size of existing backlog, rather than on developing backlog, and it is widely recognized that the pace of litigation is not what it could be in a majority of the nation's courts.<sup>22</sup> But Illinois appears to have begun to bring new caseload under some degree of control. It is a promising sign that bodes well for all agencies associated with criminal justice efforts.

**Policy implications**

To suggest that population growth somehow causes backlog would be to misunderstand the nature of the

FIGURE 12

**Case filings and terminations in Illinois**

Criminal				Criminal and civil			
Year	Filings	Terminations	Shortfall	Year	Filings	Terminations	Shortfall
1986	473,177	474,721	none	1986	990,933	965,350	2.6%
1987	478,096	496,077	none	1987	1,010,375	1,007,730	0.3
1988	569,124	553,052	2.8%	1988	1,231,589	1,160,235	5.8
Total	1,520,397	1,523,850	none	Total	3,232,897	3,133,315	3.1

Civil				All types			
Year	Filings	Terminations	Shortfall	Year	Filings	Terminations	Shortfall
1986	517,756	490,629	5.2%	1986	7,329,530	4,766,064	35%
1987	532,279	511,653	3.9	1987	7,069,209	5,219,129	26.2
1988	662,465	607,183	8.3	1988	8,737,406	5,105,400	41.6
Total	1,712,500	1,609,465	6	Total	23,136,145	15,090,593	34.8

Note: Although not shown separately, "clearance" percentages are obtained by subtracting the percentage shortfall from 100 (for example, combined criminal and civil clearance averaged  $100 - 3.1 = 96.9$  percent during the period). "All types" includes juvenile and traffic cases.

relationship. The link is not causal. Backlog emerges when a state, jurisdiction, or court fails to terminate at least as many cases as are filed during a reporting period. Any number of factors, in addition to population growth, can influence the volume and complexity of incoming caseload, such as new statutes, additional enforcement, and legislation changing misdemeanors to felonies. Similarly, any number of factors, such as too few judges, inadequate support, and low productivity, can prevent a system from meeting caseload demands. Given the variety of factors that can lead to the development of backlog, it seems unlikely that any one factor plays a singularly dominant role on a national scale. While the relationship between population and backlog growth seems to suggest that a rapidly expanding population base pushed a wall of additional caseload volume into state trial court systems, such a conclusion might be premature.

Although the rate at which the population base expanded in the 10 largest states was highly correlated with the rate of backlog growth, the numeric growth in population was not sufficient, by itself, to yield the backlog that actually developed (Figure 13). For example, it is unlikely that the more than 275,000 average annual population growth in Texas could have accounted for that state's shortfall of more than 331,000 cases each year, although the combination of increased per-capita case filings with population growth may have played an important role. It is much more likely that backlog growth was heavily influenced by changing caseload complexity (for example, from changes in legislation), in addition to increased volume.

Although courts tend to use linear techniques to project what is often curvilinear growth, most states should be capable of anticipating changes in caseload volume reasonably well. (Whether or not they are successful in acquiring the resources they need to meet

changes in volume is a different matter.) However, few courts have satisfactory methods for anticipating changes in caseload complexity, especially when that change occurs within a case type—such as felony or misdemeanor. For example, a change in the proportion of a state's felony caseload that requires heavy court involvement might not be apparent to planners until those cases reach the trial stage one or two years later. In that amount of time, the combined effects of volume and complexity could seriously impair the court's ability to meet caseload demands for years to come.<sup>23</sup>

**Court capacity**

Whatever the precise nature of the association between population and backlog growth, the existence of the relationship seems to suggest that, for the most part, the 10 largest state court systems have little reserve capacity to deal with increasing workloads. Sustained changes in demand seem to translate into substantial backlog growth. States with near zero population growth from 1986 through 1988 appeared to have been able to "catch up" to the demands of earlier years, in that they were able to limit the development of new backlog. In contrast, states with rapid population growth hemorrhaged badly. What is not yet known is the extent to which resource levels kept abreast of rising caseloads during the study period. Historically, courts have not been able to increase resources as rapidly as increasing caseload demands would dictate.

**The planning process**

Overall, if the association between population and backlog growth is indicative of anything at all at this early stage, it suggests that macro-level planning and resource acquisition is critical in rapid-growth environments. Population growth is seldom factored into workload

projections for several reasons. First, much court planning is conducted one court or agency at a time. The effects of population shifts may show up in a macro-level analysis, but it is likely that the influence is less apparent at the single-agency level. Second, the present study may be the first to examine the large-scale effects of population shifts on workload overflow. Third, regardless of the strength of the relationship between population and backlog growth, it is by no means clear how it should be factored into planning and prioritization strategies.

The principal findings to emerge from this research to date suggest that while some of the largest states, including Illinois, have managed to slow the rate at which new backlog is developing, not one of the 10 largest states has yet stopped the growth of backlog altogether. On that basis alone, there is little reason for optimism where court delay and backlog are concerned. If anything, it is discouraging to note the rapid rate at which state trial court systems are falling behind.

If further study confirms the apparent link between population growth and the development of larger backlogs, it may eventually become possible to plan more effectively for workload requirements, but that day seems very distant. And, even in the hope that researchers might be a bit closer to understanding some of the factors that influence the emergence of new backlog, it seems important not to lose sight of the fact that the dominant characteristic of most state court systems is a large *existing* backlog. As backlog grows, the time required to move a case from filing to termination increases.

At current rates, average life expectancy at the age of retirement may be shorter at the turn of the century than the time required to move a civil case to trial in many courts.<sup>24</sup> As the nation's average age increases, that is a disturbing prospect, but the evidence is compelling. Backlogs are pervasive, and rapidly becoming worse. The three-year period between 1986 and 1988 lies well within one of the longest sustained economic upturns in history. Not only was there an absence of progress in reducing existing backlogs, there was no abatement in the race to build larger ones. On a national scale, the battle against court delay is being lost at a staggering rate.

## The data

The data used in this report were originally collected by the National Center for State Courts (NCSC), as part of a project funded by the State Justice Institute in cooperation with the Conference of State Court Administrators. The data are available to the public in NCSC reports titled *State Court Caseload Statistics*. Illinois Criminal Justice Information Authority researchers conducted a secondary analysis of the data in the three most recent of those reports available at the time (1986, 1987, and 1988) in an effort to learn more about changing caseload dynamics. The study will continue, and should be of value to a

FIGURE 13

### Average annual population growth and backlog trend for the 10 largest states, 1986-1988

State	Population*		Backlog trend**	
	Growth	Percent	Average shortfall	Percent
Florida	319,793	3.3	175,918	14.9
California	609,146	2.6	574,244	25.7
Texas	275,813	1.9	331,397	20.3
North Carolina	75,421	1.3	36,473	3.7
New Jersey	36,603	0.5	30,349	2.9
New York	43,317	0.3	113,629	7.6
Ohio	4,970	0.05	2,469	0.2
Michigan	3,695	0.04	12,757	1.5
Pennsylvania	1,492	0.01	85,686	10.4
Illinois	1,214	0.01	33,194	3.2
<b>10 largest</b>	<b>1,371,463</b>	<b>1.1</b>	<b>1,396,116</b>	<b>11.2</b>
<b>National</b>	<b>2,220,505</b>	<b>1.0</b>	<b>1,831,545</b>	<b>9.0</b>

\* U.S. Bureau of the Census, 1991.

\*\*The backlog trend is the average annual shortfall expressed as a percentage of average annual output (1986-1988).

variety of planning and research interests.

The analysis was limited to three tables in each of the reports: Table 8, Table 9, and Table 10. Those tables provide state-by-state statistical summaries, by type of jurisdiction, for "grand total," civil, and criminal caseloads, respectively. National totals are not printed in any of the tables, but some national totals (primarily aggregate filings) appear in textual narratives in the 1987 and 1988 reports.

For the most part, Tables 8, 9, and 10 contain filing and termination data for limited and general jurisdiction trial courts. In addition, they contain the clearance rate for courts with comparable filing and termination data. A "clearance rate" is the percentage of filings terminated during the year. It is computed by dividing annual terminations by annual filings and multiplying by 100. A value of 100 percent or more means that a court terminated at least as many cases as were filed. A value below 100 percent means that fewer cases were terminated than were filed (and that the difference was added to backlog).

Several steps were taken to clean the data prior to analysis. The database developed by the Authority was consistent with the source data with five exceptions: two publication errors totaling 1.3 million cases were found in Table 8 of the 1986 report, and three of six national caseload totals cited in the text of the 1987 and 1988 reports could not be confirmed. The largest discrepancy in the last group was about 55,000 cases, a relatively insignificant percentage (less than 1 percent) of the national total.

For purposes of analysis, the clearance rate was important because it determined which jurisdictions

would be selected for study. In theory, a clearance rate can be computed only when a court's filing and termination caseload counts are reasonably comparable. For that reason, only jurisdictions for which clearance rates had been computed by the statisticians who compiled the original tables were selected for study.

Not only was the analysis limited to jurisdictions with published clearance rates, jurisdictions were included only when a clearance rate had been computed for each of the three years. In other words, the analysis was limited to the same jurisdictions all three years, and it was limited to jurisdictions for which clearance rates had been computed each year. All of the analyses summarized in this report, including calendar growth rates and projections, have been based upon that group of jurisdictions that met the "three consecutive clearance rate" criterion.

Because of these restrictions, the following were excluded from analysis: all criminal data from Louisiana, Massachusetts, Mississippi, Montana, Nevada, New Hampshire, South Dakota, and Tennessee; all civil data from Connecticut, Iowa, Massachusetts, Mississippi, Missouri, Montana, Nevada, Oregon, South Dakota, and Wyoming; and all "total" data from Connecticut, Iowa, Massachusetts, Mississippi, Montana, Nevada, New Hampshire, South Dakota, and Tennessee. Only five states (Massachusetts, Mississippi, Montana, Nevada, and South Dakota) were excluded from all three data tables and from the study as a whole. The District of Columbia and Puerto Rico were included throughout.

### **The backlog trend**

The backlog trend measure was an important aspect of the state-level portion of the analysis. Although the measure is very similar to calendar clearance over time, an important difference is that clearance is a filing-based measure while the backlog trend is termination-based. "Clearance" is the mathematical difference between a court's filings and its terminations during a measurement period (usually a year). Subtracting filings from terminations results in a negative number if there were fewer terminations than filings, and a negative number means that the court's backlog grew by the amount of the difference (a positive difference means that backlog was reduced by that amount).

In developing the "backlog trend,"<sup>25</sup> the Authority attempted to extend the annual clearance concept to show direction over time. In computing the backlog trend, the Authority first accumulated clearance outcomes over a multiple-year measurement period. For example, if a court had clearances of -2,000, -1,000, and -4,000 cases for each of three consecutive years, its accumulated clearance would have been -7,000 cases for the period as a whole. Since the extent to which a court is able to meet caseload demands varies from year to year, accumulated clearance was further refined by converting it to an

average annual clearance value. In the above example, average annual clearance for the period would have been  $(-7,000 / 3 =) -2,333.3$  cases per year. In other words, this hypothetical system's backlog grew, on average, by 2,333.3 cases per year during the measurement period.<sup>26</sup> In smaller systems, a shortfall of that magnitude might be a very noticeable addition to an existing backlog, but in larger systems such a shortfall might be almost irrelevant. In order to allow comparison of average clearance values across systems of varying size, the average clearance value must be divided by the system's average annual output during the same period.

To illustrate, if the system in this example averaged 100,000 terminations each year, its backlog trend would have been  $(-2,333.3 / 100,000 =) -.0233$ . The interpretation of the result is that the court's backlog in this example grew at the rate of 2.3 percent of average output. That suggests that such a system would need to increase output by at least 2.3 percent to stem the development of a larger backlog.<sup>27</sup>

Figure 13 shows the backlog trend for each of the 10 largest states during the 1986 to 1988 period.



## Notes

1. These reports provide caseload filing and termination data for four major case type groups: criminal (felony and misdemeanor), civil (general civil, summary civil and domestic relations), juvenile, and "total" (including traffic).
2. Population factors were a much-debated planning consideration during the 1960s and early 1970s. By the late 1970s, they declined in favor, largely because the nature of the relationship between population and workload remained vague. Although one of the implications of this study is that population seems to be important after all, the evidence is indirect and far from predictive. The development of new backlog was strongly associated with population growth between 1986 and 1988, but filing growth was not.
3. The size of the backlog in any given court is generally unrelated to the size of the backlog in other courts. Backlog develops when a court terminates fewer cases than have been filed, ending the year with a shortfall. Shortfalls can result from too few resources, a sudden increase in filings, increasing case complexity, or any number of other factors. Once backlogs develop, some courts take steps to deal with them quickly, while other courts do not or cannot.
4. Galantar has proposed the possibility that "case congregations" may be an important component of changing litigation patterns. The concept is consistent with a great deal of existing theory and research, and may be especially relevant in rapid population growth environments. See Marc Galantar, "Case Congregations and Their Careers," *Law & Society Review* 24 (2, 1990):371-395.
5. Numerous examples of nearly dysfunctional legal systems (judicial and non-judicial components) could be used to illustrate that once backlogs develop, timeliness declines, costs escalate, and efforts to bring performance capacity in line with workload requirements becomes extremely difficult. In its current stage of development, this study is largely descriptive. If the findings bear up under further scrutiny, more prescriptive recommendations would be of value to funding, prioritization, and coordination strategies in the court and court-related environment.
6. The data were obtained from the *State Court Caseload Statistics* (Williamsburg, Va.: National Center for State Courts). The Authority examined more than 80 percent of all reported state trial court filing and termination volume for each of the three years studied. Of the 193 different trial court jurisdictions in the country, the analysis specifically focused on 84 limited and general jurisdictions handling criminal caseload and 91 limited and general jurisdictions handling civil caseload. Depending on the state, a single jurisdiction may have handled civil and criminal caseloads. The number of courts in each jurisdiction ranged from a few to hundreds.
7. John Goerdts, et al., *Examining Court Delay* (Williamsburg, Va.: National Center for State Courts, 1989). Data from 18 large urban courts show that processing times for jury cases in 1987 ranged from a median time of 661 days (1.8 years) to a maximum time of 1,223 days (3.3 years). This study did not include the nation's slowest urban courts.
8. Estimate developed by the Authority from data provided by the Administrative Office of the United States Courts, telephone interview, December 1990.
9. These estimates are based on curvilinear extrapolation. The baseline period (1986-1988) is very narrow, and the estimates are subject to error, as is virtually all extrapolation. This particular model was used because it provided a more conservative (lower) estimate of backlog growth than a linear alternative. The importance of these estimates is not how close they will be to the actual by the years 2000 or 2010, but what they say about the condition of state court systems. Every bit of evidence suggests that the problem continues to grow worse almost daily.
10. The term "calendar clearance" seems to have originated in the federal appellate courts. Its application to trial court performance probably started in the 2nd Circuit in Manhattan in the 1970s. The term originally meant that a court had terminated everything that had been filed that year when it reached the point at which it had "cleared its calendar" (usually just prior to the summer recess). The term was eventually applied to trial courts for assessment purposes, although it no longer meant that a court had terminated the same cases that were filed during the year. Rather, as applied to trial courts, it means that one of a court's objectives is to make an effort to terminate at least as many cases as are filed during the year (some of which were likely filed in previous years). Clearance is variously expressed as the numeric difference between filings and terminations (subtracting filings from termination) or as the percentage a court's annual terminations are of its annual filings (terminations divided by filings times 100). When whole numbers are used, a negative difference indicates that the court's backlog increased. Similarly, when expressed as a percentage, a value below 100 percent means the same thing.
11. The National Center for State Courts recognizes 193

jurisdictions of all types including juvenile and municipal. The 175 jurisdictions discussed here include only criminal and civil. (Brian Ostrom, National Center for State Courts, personal communication, April 5, 1991.)

12. *Resident Population Change by State, 1980-1990* (Washington, D.C.: U.S. Bureau of the Census, 1991.)

13. Trial court jurisdictions were excluded from the analysis whenever filing and/or termination information was not complete. For example, a jurisdiction that reported filings but not terminations in any of the three years studied was excluded for all three years. Similarly, a jurisdiction that reported filings but only a portion of its terminations was excluded all three years.

14. The same data set was used for all parts of the analysis.

15. Trends in the emergence of new backlog are far more clearly defined with combined criminal and civil caseload data than with either alone. That may be because many courts have the flexibility to balance the overall effort between those two types of cases. When the demands of one or the other of those two types of cases temporarily exceed the capacity of a court, it is often possible to shift resources to meet demand and avoid the development of larger backlogs. However, when the demands of both types exceed court capacity, the result is the emergence of more backlog.

16. A least-squares correlation between average annual population growth (the independent variable) and the backlog trend (the dependent variable) produced an  $r^2$  of .32 when the dependent variable was the criminal backlog trend, an  $r^2$  of .49 when the dependent variable was the civil backlog trend, and an  $r^2$  of .59 when the dependent variable was the combined criminal and civil backlog trend. The latter was statistically significant at the .01 level. An  $r^2$  of .59 means that 59 percent of the variance in the dependent variable is explained by the independent variable. As  $r^2$  approaches 1.0, the independent variable (population growth) predicts dependent variable values with increasing accuracy. An  $r^2$  of 1.0 means that the independent and dependent variables are perfectly correlated and observations lie along a straight line between the respective "x" and "y" coordinates. Depending upon the study, an  $r^2$  of .25 or higher is generally considered strong evidence of association in social science research.

The average annual population growth rate used in the study was that published by the U.S. Bureau of the Census (*Resident Population Change by State, 1980-1990*) for the 10-year period between the 1980 and 1990 decennial censuses. No attempt was made to improve the fit between the independent and dependent variables by using interim population growth estimates, or by using

time series analysis. That suggests that the link between the two may well be much stronger than indicated at this early stage of inquiry.

17. The association is between *rates of growth* rather than raw numeric growth. If two states each have a 5-percent shortfall and one handles 10 times more caseload than the other, 5 percent of the larger caseload will, of course, be 10 times larger than the other. An attempt to correlate raw numeric growth would produce results heavily weighted to the state with the largest caseload volume, and the result would be difficult if not impossible to interpret. On the other hand, rates make it possible to place otherwise dissimilar state caseloads on an equal footing on one or more dimensions.

18. This suggests that backlog- and delay-related inquiry must be as concerned with where it looks as with what it looks at.

19. Perhaps the single most problematic aspect of comparing caseload trends across different state systems is that no two states count (or define) caseload in exactly the same way. In restricting analysis to jurisdictional systems in which filing and termination counts appear to be fairly consistent from year to year, the Authority attempted to control some of the count-related variability that can occur within individual states. However, it is impossible to control the count-related variability that exists between states. An underlying assumption in this analysis is that while interstate variation in case definition and case counts makes it virtually impossible to compare volume; standardized rates are comparable.

20. Combined criminal and civil caseload, or filing, growth was not strongly correlated with population growth in the 10 largest states ( $r^2=.1$ ). There was, however, a stronger association between population and filing growth for civil caseload alone ( $r^2=.18$ ). Examining the relationship between population and filing growth in much greater detail (such as by type of case and by type of jurisdiction), National Center for State Courts researchers have found important relationships between the two. *State Court Caseload Statistics* (Williamsburg, Va.: National Center for State Courts, 1989).

21. For a broad-based collection of articles that deal with some of the most important issues in longitudinal trial court research, see *Law & Society Review* 24 (2, 1990). Articles by Stephan Daniels, David M. Engel, and Albert J. Reiss address a variety of caseload dynamics issues.

22. John Goerdt, et al., *Examining Court Delay* (Williamsburg, Va.: National Center for State Courts, 1989).

23. There is probably a lag between the onset of rapid population growth and the emergence of high levels of backlog growth. North Carolina may provide researchers with an opportunity to study that possibility. The state is currently doing reasonably well in meeting caseload demands, but if population expansion continues at a robust pace, and if the state is unable to respond proactively, it may find itself saddled with a backlog problem not unlike that in California, Texas, and Florida.

24. Civil case processing times, particularly for complex litigation, is five years or more in some of the largest urban courts. With the U.S. Bureau of the Census currently reporting average life expectancy at 74 years, a person who retires at age 65 may not live long enough to see the conclusion of a civil jury case.

25. That is, average shortfall expressed in terms of average output (terminations).

26. A +2,333.3 increase in backlog is mathematically equivalent to a clearance of -2,333.3 cases.

27. The same result is obtained by dividing accumulated clearance by accumulated output ( $-7,000/300,000 = -2.3\%$ ). The negative sign, in this example, indicates that the court had a shortfall that was 2.3 percent of output (there were 7,000 more filings than terminations over the period, so output was 2.3 percent lower than it needed to be to enable the court to break even). Since shortfalls are added to existing backlog, a 2.3-percent shortfall is equivalent to saying that backlog grew at 2.3 percent of the court's output. Note that it would not be correct to state that backlog grew by 2.3 percent. The measure is expressed in relation to output. It is an important analytic tool because it helps show the direction the court is headed with respect to the development or elimination of backlog. Note also that the backlog trend is somewhat different from clearance when expressed as a percentage. In this example, clearance would have been accumulated terminations (300,000) divided by accumulated filings (307,000) times 100, which equals 97.72 percent. Subtracting 100 from the clearance value results in  $97.72 - 100 = -2.28\%$ . Rounding, in this example, appears to produce the same result as obtained above, but larger shortfalls reveal that the two calculations are not at all the same. The backlog trend (2.33 percent) is expressed in terms of output (terminations) while clearance is expressed in terms of input (filings). Preference is given to the output-based calculation when the focus is on system capacity analysis.

## Recent Authority Publications

*Trends and Issues 91: Education and Criminal Justice in Illinois* examines the relationship between the educational system and the criminal justice system in Illinois; August, 1991.

*Flow of Funds in Illinois' Criminal Justice System* explains how various criminal justice funds are collected and how they are transferred from one level of government or agency to another; March 1991.

*Annual Audit Report for 1990: Audit of Illinois' Computerized Criminal History System*, focuses on state's attorney and circuit court dispositions; March 1991.

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These publications are available free of charge from the Authority. To obtain copies, or for a list of all Authority publications, contact Olga McNamara at the Authority, 312-793-8550.

## Research Bulletin

The Authority publishes research bulletins on topics of interest to criminal justice professionals, researchers, and the public.

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