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## Oregon 2100: Urban Form and Settlement Patterns

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DR 91-2

**OREGON 2100**  
**Urban Form and Settlement Patterns**

Nohad A. Toulan

Discussion Paper 91-2

September 1991

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## **Introduction**

In 1987 New York City adopted the report of its "Commission on the Year 2000." A year later Los Angeles followed the same course and approved a report prepared by its "Los Angeles 2000 Committee." In Oregon we have been equally active in the development of alternative scenarios and strategic plans for the year 2000. The Oregon Progress Board and its Benchmarks is just one example. Others include Portland's Civic Index process and Future Focus, METRO's Goals and Objectives study and LCDC's Growth Management Study. These studies and numerous others across the country reflect a the desire to enhance, or at least maintain, the quality of our social and physical environments as we move into the 21st century. The year 2000 is obviously a significant milestone. It is not only the end of one century and the beginning of another one, but it is also the transition from one millennium to another. Other than the attached symbolism, however, the year 2000 is no more significant for us today than 1990 was nine years ago. Nevertheless, symbolism is an important and very powerful tool if used properly to challenge our imagination and focus our attention on the real issues, assuming we can delineate them in the proper framework.

## **The Need For Long Range Planning**

It is my thesis that the real land use challenge facing us is not what will happen in nine years, when the 20th century ends, but to determine the long term consequences of our current vision, or the lack thereof. In other words, while 2000 is a good symbol, the real target year lies further beyond in the next century and, in that case, the year 2100 is as good as any. Does this sound like a serious proposition? At first glance the answer is likely to be no; conventional planning wisdom rules out any long range planning beyond the traditional twenty year span set by Alfred Bettman in his 1928 Standard Planning Act. The "functionalists" among planners will object, on proper scientific grounds, to any attempt to develop planning scenarios for fifty or one hundred year periods. While not disputing the scientific validity of such objections nor questioning the historic attachment to the twenty year planning span, I will argue that both issues are not central to the approach advocated in this presentation. To understand why, I will start by discussing the main arguments used against long range planning.

1. The longer the planning period the less accurate are the assumptions, projections, and feasible solutions. I cannot dispute the validity of this statement, but I disagree with simplistic interpretations of its implications. As the length of the planning period varies, so do the planning purposes and approaches. In other words, the question of accuracy becomes moot in view of the fact that a fifty or one hundred year look into the future is more concerned with general patterns of urbanization and the relative relationships between the various elements of urban form. It deals much less, if at all, with specific courses of action and it certainly does not attempt to develop fictitious solutions for unknown problems; those plans are primarily a visionary look into the future. Having said this, however, I will go back one step and stress that for such long term plans to be useful they must utilize long term vision to delineate short term courses of action that are designed to enhance positive trends and reverse negative ones.

2. The pace of social and technological change is too rapid to allow for any meaningful visualization of distant future urban forms. Here my disagreement becomes more pronounced. Indeed, our cities and metropolitan areas are different from those of our grandparents but, reduced to its basic elements and allowing for the difference of scale, the city of the twentieth century is not fundamentally different from that of the ancient Egyptians, Greeks, or Romans. Its problems and to some extent the awareness of the nature of those problems are much the same. The eleventh century residents of Cairo devised primitive measures to monitor air quality in different locations and used the results to guide the placement of new residences. Similarly, it was in the 16th century that

Elizabeth I of England called for the establishment of green belts around English towns to prevent them from "growing into each other". These are measures that provide our current environmental and growth management programs with deep historic roots. Closer to our time, those of us who are old enough to have been educated in planning during the 1950's remember the fantastic schemes envisioned for the cities of the eighties. These included moving sidewalks and flying saucers instead of cars, resulting in the elimination of most streets as major channels for movement. Obviously, none of these scenarios materialized and the basic nature of the city of the eighties was not much different from that of the fifties. Of course, there have been changes, particularly in the communication and information sectors but their impact on urban form is far from being revolutionary. One of the reasons for the slow pace of structural change is the dominance of the existing elements. We do not discard structures and infrastructures as fast as technology changes, and this inertia serves to moderate the impact of new technology on the basic elements of urban form. Another reason is the nature of our socialization process; it evolves, but does not change abruptly every time technology changes. The rediscovery of the movie theater in the face of the onslaught of television and VCR's is just an example.

3. Taking care of short term problems is the gateway to a better future. Unfortunately, this attitude describes many of our current planning ventures. It is not something that we are doing consciously and very few planners will willingly subscribe to this philosophy. This phenomenon is primarily the result of numerous societal and institutional changes that occurred in the last thirty years, but it has its roots in the way modern city planning thought and practice evolved during the last one hundred years. It is the result of a disequilibrium that occurs when we alter the balance between the three major components of the planning process; social, economic, and physical. The importance of balancing the three elements is not a new phenomenon. Plato's *Republic* and Thomas More's *Utopia* represented integrated visions that addressed social and economic orders, as well as physical environments.

The evolution of urban and regional planning in this country is in reality a product of the search for the ideal balance. Unfortunately, it is in our nature to react more easily than to act, and so we tend to alternate between extremes. The social reformers of the late 19th century hated the city because it symbolized everything negative in the industrial revolution. They were anti-urbanists who felt that cities were beyond salvation. The "City Beautiful" movement that emerged from the 1893 World Columbian Exposition of Chicago was a shift of a sort. It sought physical solutions for urban ills and simplistically assumed all social and economic woes were environmentally based and as such could be addressed through environmental change, which is the same argument made 80 years earlier by the English industrialist Robert Owen and illustrated in his proposed "Institution for the Formation of Character." We know that this is only partially true and civic activists were quick to realize this. The result was a shift to the "City Functional" movement by 1912. The return to physical planning occurred in the late 1920's, and comprehensive planning for "the physical development of the city" remained the mainstay of planning thought until the early 1960's. That was the period when planners became reformers and advocates for social justice. While there is nothing wrong with placing emphasis on equal access and social justice, it was a mistake to give up long term vision and concentrate on short term activism. Since then our approach to planning has remained narrowly focused, and in most instances we have cared more for the process than for the product. We have developed goals and objectives, programs and regulations, but no vision against which we can evaluate our objectives or programs. Vision has become synonymous with utopia, which in its abstract notion is erroneously defined as the "unreal" to be aspired for but not to be taken seriously. I do not want to be unduly critical of my profession and I am not. We are no more guilty than the rest of our society. Short term problems and concerns are overpowering and in our responses to them we are committing

the same mistake for which we criticize developing countries; failure to define the long term direction while addressing day-to-day problems and concerns. This problem afflicts most aspects of our society, including my field of higher education, but I am here to address urban form and growth and I will now move to reflect on what is right and wrong with our current approaches.

### **The Importance of Vision**

When it comes to land use planning and growth management we in Oregon have every reason to be proud. In many ways we are the envy of planners in other states and our fifteen year old experiment with state-wide land use regulations is monitored and examined for successes and failures by professionals and policy makers far beyond our borders. While, for some unknown reason, national observers do not consider Oregon a trend setting state, it is a fact that when it comes to land use management and environmental protection our list of firsts is very impressive. The bottle bill is a well publicized example, but others are equally or more important. Our shore line is protected from private development and undue encroachment, and Salem's urban growth boundary is the first in the nation and is one case that remains a focal point for researchers from around the country. Outside of Dade County, which is a special case, we also have the first elected regional government. In brief, our list of accomplishments is impressive and I am the last individual to belittle the time and energy expended on these programs.

It does not behoove us, however, to allow our past successes to blind us to the need for self examination and reassessment. As I have already indicated, our pioneering efforts are under the microscope of researchers everywhere. However, we are in a better position to judge our successes and failures and to redirect our course. Doing so does not diminish the significance of our past accomplishments and does not alter their pioneering nature.

I have stated earlier that the way we approached planning in the 1970's emphasized programs and processes, sometimes to the point of treating them as ends unto themselves. This approach is clear in the way LCDC addressed its mandate and more so in the way we developed our urban growth boundaries. In this regard, I share equal responsibility and speak from personal experience, having served on the CRAG Technical Advisory Committee that established the Portland urban growth boundary in the late seventies. The committee did its best in balancing the demands of the various affected communities, but it did so without the benefit of a long term regional plan or regional vision of possible future urban patterns. These could have included potential growth poles and/or growth corridors. In other words, we put in place mechanisms for regulating growth without the benefit of a clear vision of the kind of urban or regional form that would result.

We did the same at the state level. We have one of the best and most well defined statements on land use goals and objectives. We also have in place a well developed set of regulations for local implementation and a good agency and process to monitor compliance. However, in the absence of an accepted vision or a long term plan that defines a desired future urban settlement pattern, regulations alone tend to propagate the status quo and our actions become more reactive and less proactive. In states with stable populations our current approach may be appropriate but not necessarily desirable. This is because stable systems are much easier to regulate than rapidly changing ones. In the case of the latter, we are dealing with a moving target that must be clearly visualized, understood, and accepted.

To illustrate the point I am impressing on you it is useful to recall that when our planning efforts and subsequent programs were accompanied or preceded by well defined



visions, the results were unmitigated successes. While we may not all agree with Tom McCall's vision of a no growth state, it is an undeniable fact that it was ideas such as the Willamette Greenway that, when combined with his crusade against growth, ignited our imagination and propelled our motion toward the goal of state wide involvement in land use planning and management. Where Tom missed the point was in not realizing that the culprit is not growth but growth of the wrong type in the wrong locations. Another example is the exceptional revival of Portland's downtown. It is the product of the vision espoused in the 1972 Plan and of Neil Goldschmidt's support for its ideals.

Our failure to define a state wide vision for accommodating future population and urban growth is already manifesting itself in the growing pressure on and challenges to the Portland area urban growth boundary. A long term vision tells us whether a growth boundary is permanent or temporary. If it is the former, and if we cannot freeze population growth, we must know when and where to direct the ensuing development. If it is the latter, as some in the suburban counties believe, our treatment of areas immediately beyond the boundary should be such that when we expand, development can proceed at normal densities. This will eliminate the necessity of leapfrogging which is the prospect currently facing us, particularly in Clackamas county. In fact, if I am allowed to borrow a technical term from August Losch's 1939 description of the structure of cities, and if we start leapfrogging, we are likely to produce what he described as city rich/city poor patterns of development. The only difference is that his were alternating corridors of high and low intensity activities, while ours will be alternating rings.

What we need, therefore, is a clear understanding of the changes that are likely to occur in our demographics not only during the next twenty years but far beyond. This understanding will help us visualize the directions that development is likely to follow. If we like what we discover the tasks lying ahead will be easy. If, on the other hand, the results are alarming, we need to act while we still have time to influence and redirect growth. To illustrate my point I will attempt to give you some quick analyses of the pattern of our state population distribution, how it has changed in the last 120 years and what it may be another 100 years from now. In doing so I am guilty of what my fellow scientists are not likely to tolerate; gazing into a crystal ball. But it is only an illustration, and if I can get you to see where we are heading the gamble will have been worth taking.

### **Oregon's Population Distribution**

Oregon's population, as reported by the 1990 Census, was slightly more than 2.84 million. This represented an increase of 8 percent since the 1980 Census. Our growth was below the national average of 10 percent, but not by much. However, compared to the other two Pacific Coast states, we were considerably behind. In fact, the Center for Population Research and Census reports that our ten year rate of growth was less than half that of Washington (18.2%) and less than one third that of California (27.2%). This analysis, however, could be seriously misleading if used to predict future trends. The early years of the 1980's were difficult ones for our timber based economy and the impact of the recession devastated many of our smaller communities. Our population actually declined between 1981 and 1984 and, after a slight increase in 1985, it declined again in 1986. Our success in stabilizing our economy and recent changes in the pattern and trend of regional migration are contributing to an invigorated growth rate. Since 1987 the rate averaged 2 percent annually, which will be more than 21 percent if it continues unchanged for the next 10 years. Currently, there are no indications that our growth rate is slowing down. This could mean a population increase of more than half a million by the year 2000. This growth, if concentrated in one place, produces a community twice the size of the Salem metropolitan area or slightly less than half the size of the Portland metropolitan area. Obviously, growth will not be concentrated into one

community, but if past trends prevail, it is safe to assume that more than eighty percent (450,000) will occur in the Portland-Ashland (I-5) corridor.

If this happens it should surprise no one since it is a natural extension of what has been happening in Oregon since 1870. To illustrate the evolution of our current pattern of development, and only for this purpose, I am dividing the state into six geographic regions (Figure 1). Regions I and II consist of the five coastal counties, Region III encompasses the 13 counties of the Willamette valley and the I-5 corridor. East of the Cascades, Region IV covers Klamath and the four east central counties, and Regions V and VI cover the eastern Columbia corridor and the southeastern desert. The division is not intended to produce areas of equal size; it clusters counties that share similar characteristics in as far as past and future development trends are concerned.

The most heavily populated of the six is Region III, and its dominance goes back to 1870 when the State's population was no more than 91,000. At that time the 13 counties of this region had a combined population of 74,000 representing more than 81 percent of the State's total (Figure 2). Region VI, which today ranks fifth in population size, was actually the second largest in 1870 with more than 7,000 inhabitants. The changes that took place during the last 120 years are reflected in Figures 3, 4, and 5 and are worth examining since they provide clues to future directions of growth. Between 1870 and 1910 the state's population increased more than six-fold and the dominance of Region III was reduced to less than 72 percent. Therefore, it could be argued that during those forty years the trend was in favor of a dispersion of our population. The population of Region I increased by more than twice the State's average and doubled its share of the State's total. Region VI had the second highest rate of growth and increased its share to slightly less than 10 percent. In contrast Region III, while still dominant, grew at much slower rate than the state's average.

The movement towards a more balanced population distribution was reversed during the following forty years. Region III regained its growth momentum and by 1950 was home to 76 percent of all Oregonians. Regions I, II, and IV continued their relative growth enhancing their shares of the State's population. The dramatic changes occurred in Regions V and VI, with the latter declining to less than 6 percent of the total. By 1990 the movement towards greater population concentration has become more profound. Region III is back to where it was in 1870 with more than 81 percent of all Oregonians living in its 13 counties. Regions I and II joined V and VI in registering relative losses, leaving Region IV as the only non-metropolitan region to increase its population share.

Between 1950 and 1990 the state's population grew by more than 86 percent. Only two regions grew at a faster rate. Region III doubled its population and Region IV increased by more than 96 percent and is now the second largest with six percent of the state's population. The southern Oregon coast (Region II) had the third highest rate of growth, while Region VI registered less than 10 percent growth in the forty year period. Today Region III has a population in excess of 2.31 million and includes Oregon's four metropolitan statistical areas (MSA's). Within this region, the four counties of the Portland MSA account for 54 percent of the region's total, with the Eugene and Salem areas representing another 24 percent. In other words, only twenty-two percent of the region's population live outside the three largest metropolitan areas. If we discount the Medford area, the percentage of those living in the five non-metropolitan counties is less than 16 percent. Those five counties are still growing at a much slower rate than the rest of Region III. This situation, however, could change under the influence of the metropolitan spillover effect, and three of these counties (Columbia, Benton, and Josephine) are already feeling the impact. It is only a matter of time (no later than the early decades of the next century)

before they encounter development pressures similar to those facing the eight metropolitan counties.

Population growth by itself is no threat to our environment or the liveability of our communities. It is the way we are accommodating it that is problematic. For example, we admire the quality of urban life in such central European countries as Germany, Austria, and Switzerland, but we forget that the former West Germany had a population of 65 million and a land area equivalent to that of Oregon. We also use Los Angeles and its urban spread as an example of what we do not want to be, while conveniently forgetting that most of our suburban development is taking place at densities lower than those encountered in Southern California. It is the pattern of our growth that is the culprit and not its magnitude. To illustrate this point it will be useful to examine the historical growth of our cities.

The 1990 Census identified 24 cities with populations of more than 15,000. Twenty of these cities are in Region III and nine are in the Portland Metropolitan Area. Of the remaining 11 only four are in non-metropolitan counties (Figure 6). In other words, two thirds of Oregon's twenty four largest cities are in metropolitan areas. Of the sixteen metropolitan cities only three were reported in the 1870 Census<sup>1</sup> and only four had a 1950 population that exceeded 15,000 (Figures 7, 8, 9, and 10). With the exception of Portland, all these metropolitan cities more than doubled their population since 1950 and several increased by more than 30 fold. The way growth occurred, and I am only using these cities as surrogates for their larger metropolitan areas, indicates that we are growing in concentric rings with each ring slowing down as it reaches saturation. Portland, which regardless of annexations, grew by only 17 percent in forty years is the best proof that our growth is largely horizontal rather than vertical. It should be expected, therefore, that growth in medium size cities such as Gresham and Beaverton will begin to slow down as development spills over in newer areas beyond their boundaries. In other words, the notion that we can absorb growth by increasing densities is not a naturally occurring phenomenon in our existing circumstances.

Without altering our current development policies and planning approaches to allow for planned new communities, where higher densities are feasible and desirable, we can only increase densities at considerable price. Infill is a commendable idea, but it carries some risk to the character of existing communities and is a very small part of the answer to the problems of growth. Indeed urban growth boundaries are supposed to provide an answer by limiting horizontal expansion and forcing communities to increase densities. Our experience so far does not suggest that this has happened. Without sounding redundant, I must stress that the problems we face in our large metropolitan areas, especially Portland, are due to the absence of a regional plan for comprehensive development. Without such plans, urban growth boundaries are only temporary regulatory devices that become obsolete when they are overtaken by unplanned and uncontrolled development from the inside as well as from the outside.

For the time being and perhaps for the foreseeable future the challenges resulting from rapid urban growth are likely to be confined to the metropolitan areas.<sup>2</sup>

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<sup>1</sup>This does not mean that all other cities did not exist in 1870. It only indicates that they were too small to be enumerated separately.

<sup>2</sup>The analysis presented here imply that development in an area is a function of population growth in that particular area. While this may be true in most parts of the State it is not in the



These four areas combined had a 1990 population of more than 1.94 million and are growing much faster than the rest of the State. Their share of our population is in excess of 68 percent (Figure 11). The problems of these metropolitan areas are due in part to the fragmentation of planning efforts. In the Portland area, for example, 42 percent of the population (more than half a million) is in unincorporated areas or in cities smaller than 15,000. Under our current regulations none of these areas is exempt from the need to adopt some form of a land use plan, but the larger picture is missing. In the absence of a regional plan that guides and integrates local plans, our ability to direct growth is limited. Currently METRO is not empowered to develop such a comprehensive plan, but it should be.

### **The Need for Action**

Based on the trends that I have just explained, we are likely to see a strengthening of four development corridors (Figure 12). The first and the most dominant is the Portland-Corvallis corridor. Growth in this corridor could easily unify Portland and Salem into one single metropolis. Before the end of the next century Eugene could actually become the southern end of that urban corridor. The second corridor is also along I-5 between Grants Pass and Ashland and all the way to the California border. The third corridor is the coastal strip from Brookings to Astoria. This is not a uniform corridor and its dynamics are different from the I-5 corridors. Its southern tip is attracting new migrants to the state, especially those of retirement age, but its central and northern parts are facing pressures resulting from growth in the Willamette valley. The fourth corridor is that extending south from Redmond through Bend and down to Sun River.

The scenario presented here runs in the face of all the UGB's and other land use regulations that we currently have. But here lies my main point. In the absence of planned alternatives that are designed to absorb or redirect growth, our regulations will only perpetuate historic trends and are likely to be modified themselves as they become obsolete or politically and economically unsustainable. I am not sure I need much effort to prove this point. We only need to examine what has happened in the last fifteen years and assess the seriousness of the growing challenges. What we are facing is not the product of a failed program; rather, it is the result a process that was started but never completed.

In addressing the questions that I have raised, I do not claim an exceptional ability to develop a comprehensive program in the brief time I had to reflect on this subject. Indeed, I have spoken extensively on the lack of long term vision in our land use and growth management approaches, but I never had the time to identify specific actions. However, I can outline the main elements of what could become an action plan for the design of a state wide planning process.

**1. Prepare a State Comprehensive Development Plan.** This plan should be based on a clear understanding of the existing urban pattern and the forces shaping its future. It should identify positive as well as negative trends and devise appropriate responses. The plan should serve as the foundation for the development of more specific regional and local plans. It is one building block, but the key one, in what is to become a hierarchical planning process. The Plan should address the following:

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coastal communities and others that depend on tourism. Second homes, while not contributing to population growth, are creating serious development pressures in those areas.

A state urban form that is based on a desirable settlement pattern that enhances the liveability of our community and protects the quality and integrity of our environment.

Integration of land use and transportation planning.

Desired and feasible balances between the state's various regions. This will require us to ask questions relative the future of the regions east of the Cascades. Should they remain largely uninhabited and underdeveloped or should they absorb more of the development destined for the Willamette Valley? I happen to think they should, but this is something that requires further investigation.

Integration of economic development and urban growth policies. A good example for such a need is the Regional Strategies program of Governor Goldschmidt. That program, like our urban growth boundaries and other land use regulations, did not have the benefit of well developed regional plans that established direction and priorities.

**2. Identify Integrated Planning Regions.** Six to eight such regions should be delineated and utilized as a mechanism for equalizing development policies. For each region a planning commission with adequate technical support (not another level of government) will be empowered to prepare comprehensive plans for the future development of the region. In the Portland Area, METRO is already in operation and is developing a new charter. It will be useful if the new charter adds comprehensive regional planning to the responsibilities of the agency and expands its planning and service boundaries to include all of Clackamas, Columbia, Multnomah, Washington, and Yamhill counties. In establishing regional planning commissions we should de-emphasize regulation and emphasize the technical resource potential. Very few organizations are as influential in their regions as the Regional Plan Association in New York, even though it has no enforcement functions. Regardless of this, very few communities disregard its recommendations. Regulation should follow planning and not the reverse.

**3. Develop Appropriate Incentives to Divert Development.** As I indicated earlier, the existing pattern of settlements in Oregon is a continuation of what emerged in the 19th century when our economy was based on agriculture and natural resources. The *raison d'etre* for this pattern is no longer here and there is no reason for it to continue other than its own momentum. We already have all the infrastructures in the Valley as well as most of our cultural and educational institutions. If our population doubles before the end of the next century, and given the need to replace rapidly decaying infrastructure, it may be wiser for us to consider long term efficiencies than short term expediencies. Given the challenge of Ballot Measure 5 this concluding recommendation, while technically correct, may sound politically naive. Nevertheless, I will stand by it because if we fail to alter our course today, the price that will be paid by our children and their children is too high for us to take the easy way out.

Figure I  
Analysis Regions

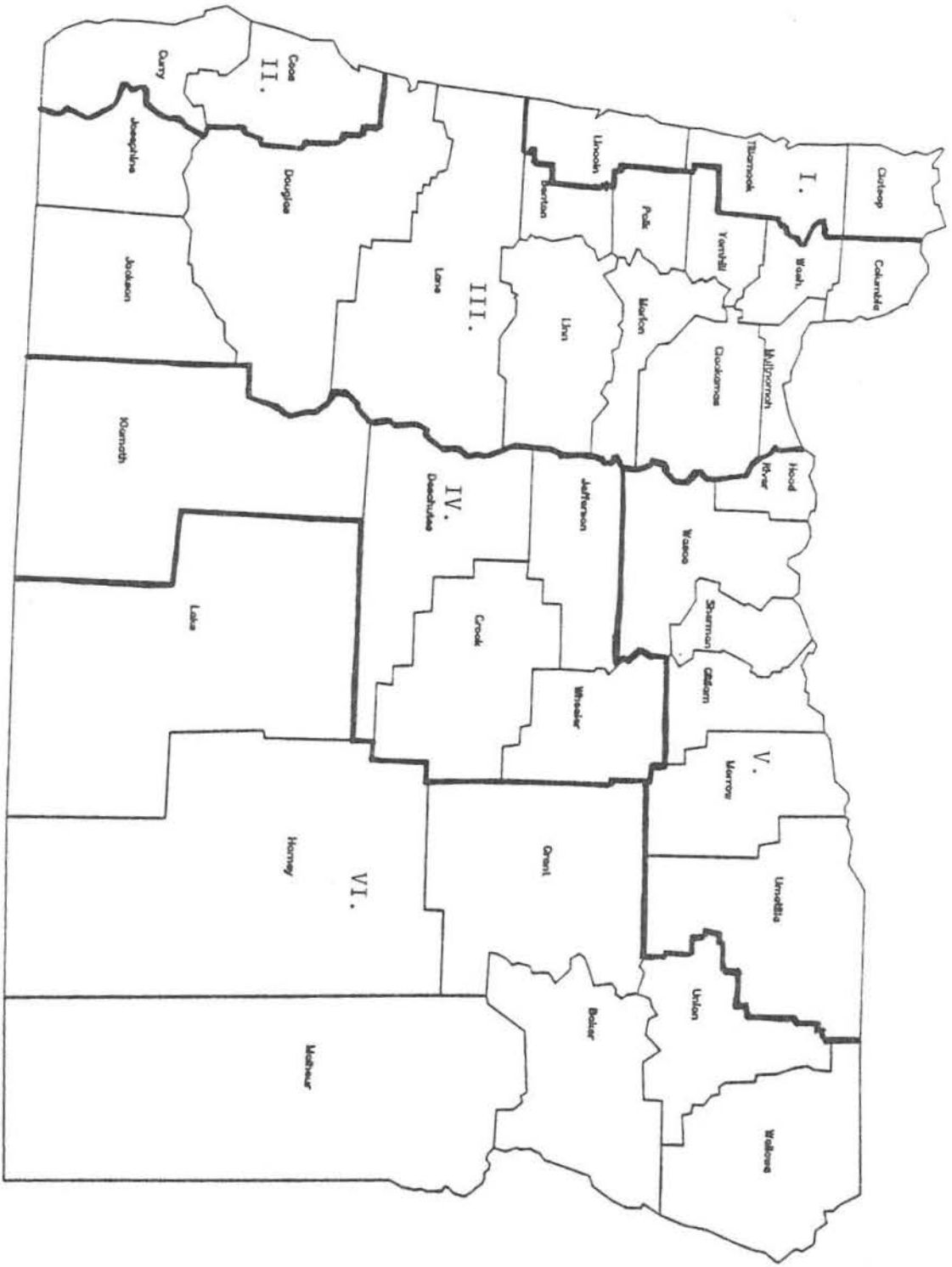


Figure 2  
OREGON POPULATION ANALYSIS  
1870

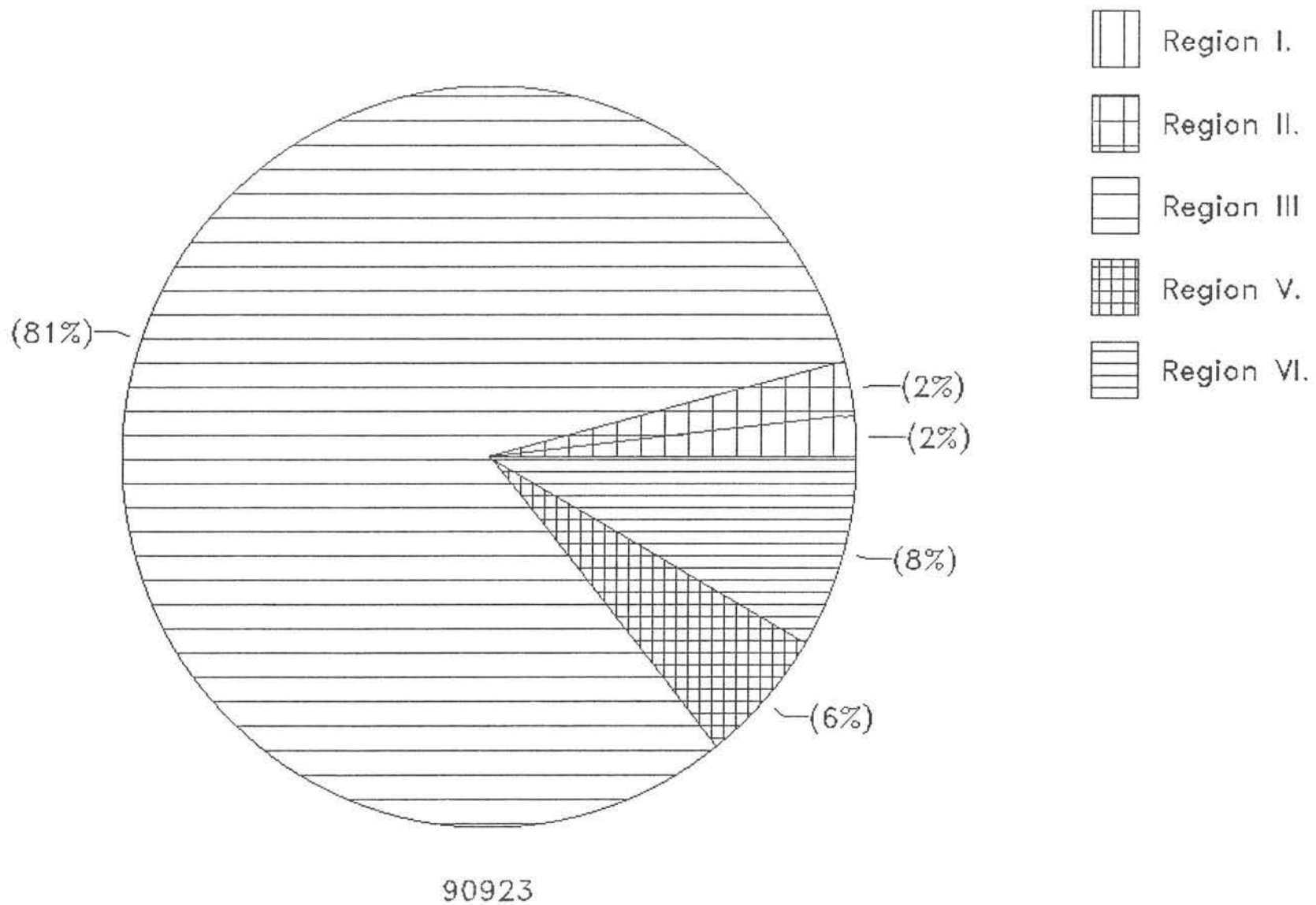




Figure 3  
OREGON POPULATION ANALYSIS  
1910

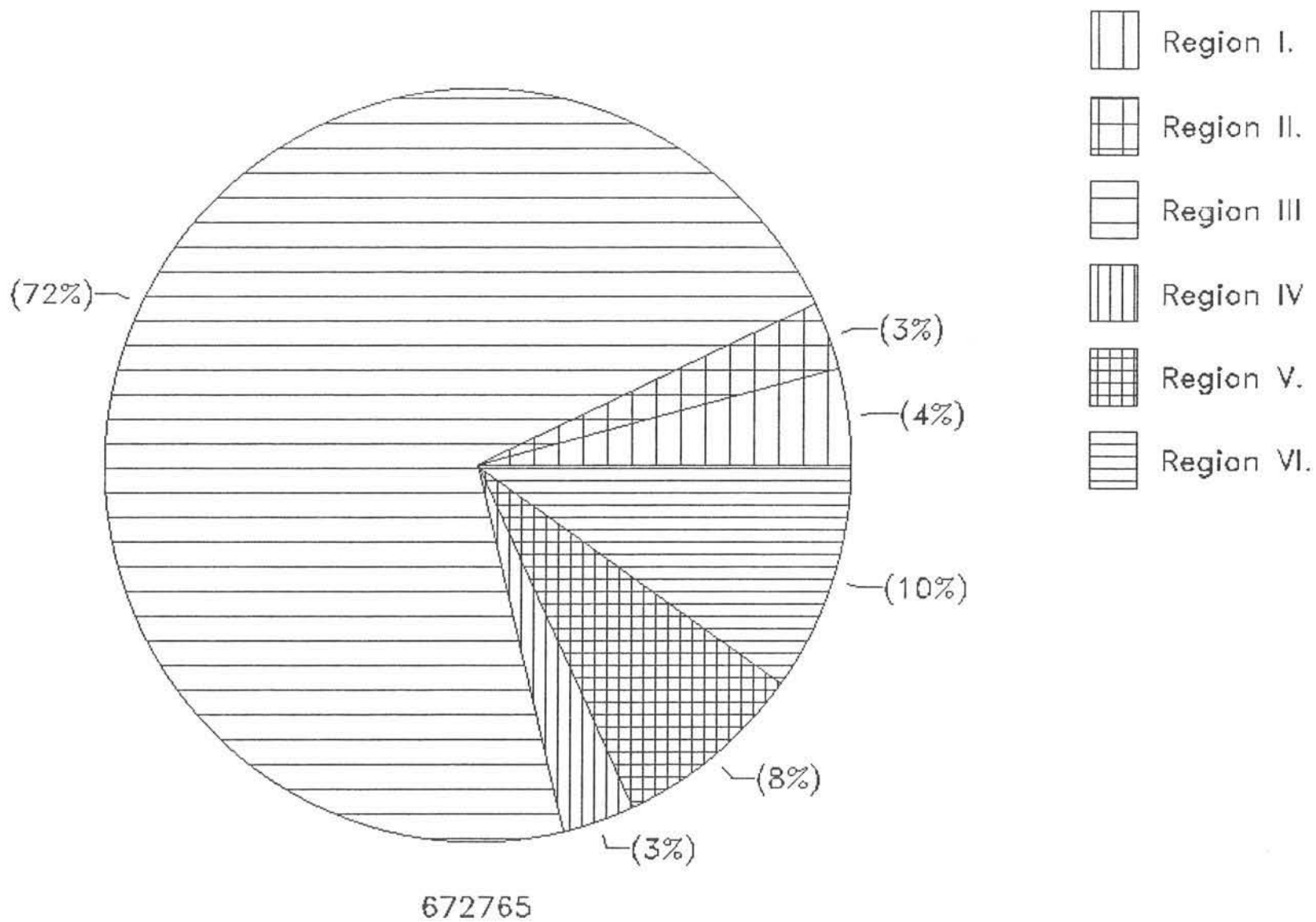


Figure 4  
OREGON POPULATION ANALYSIS  
1950

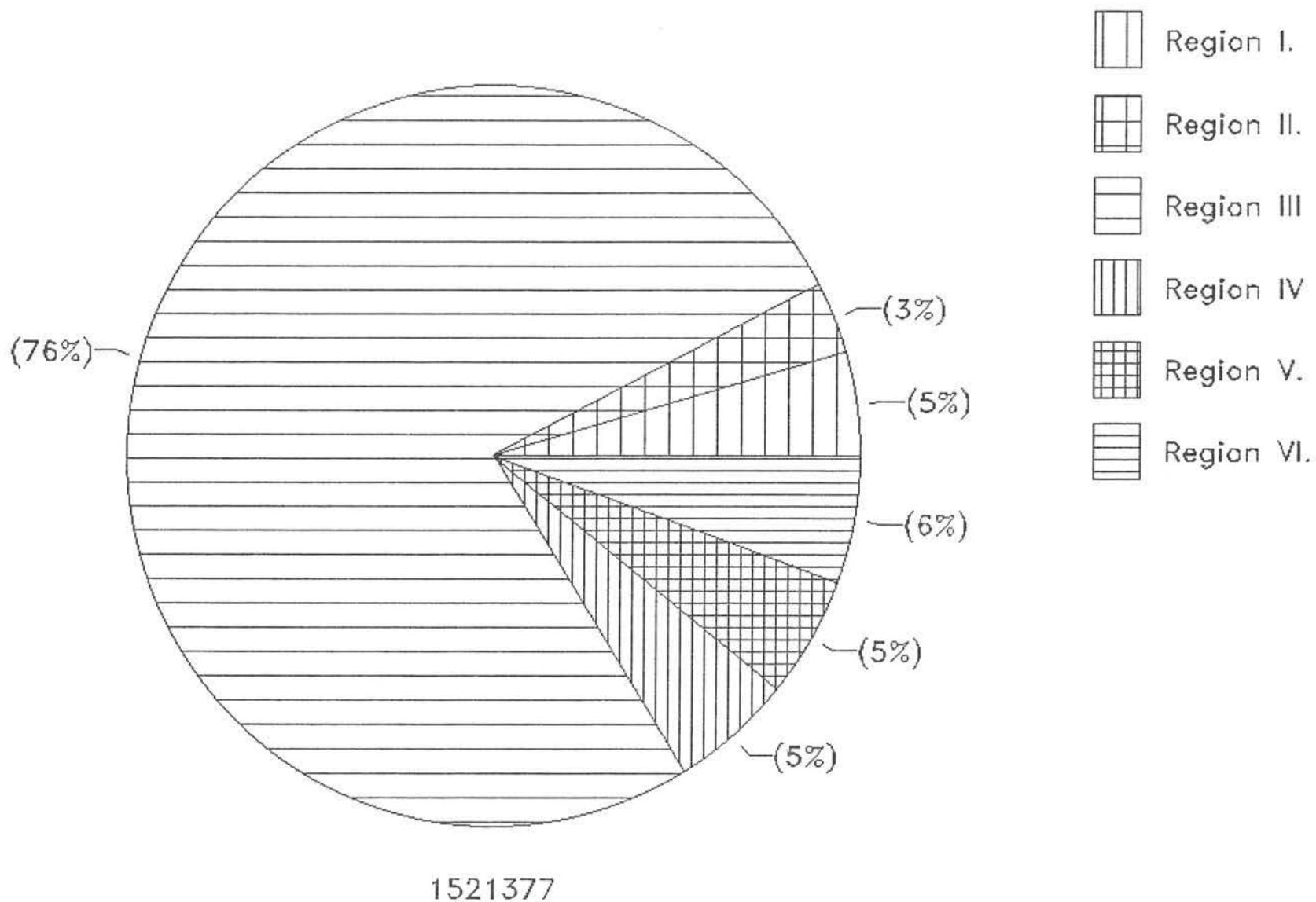
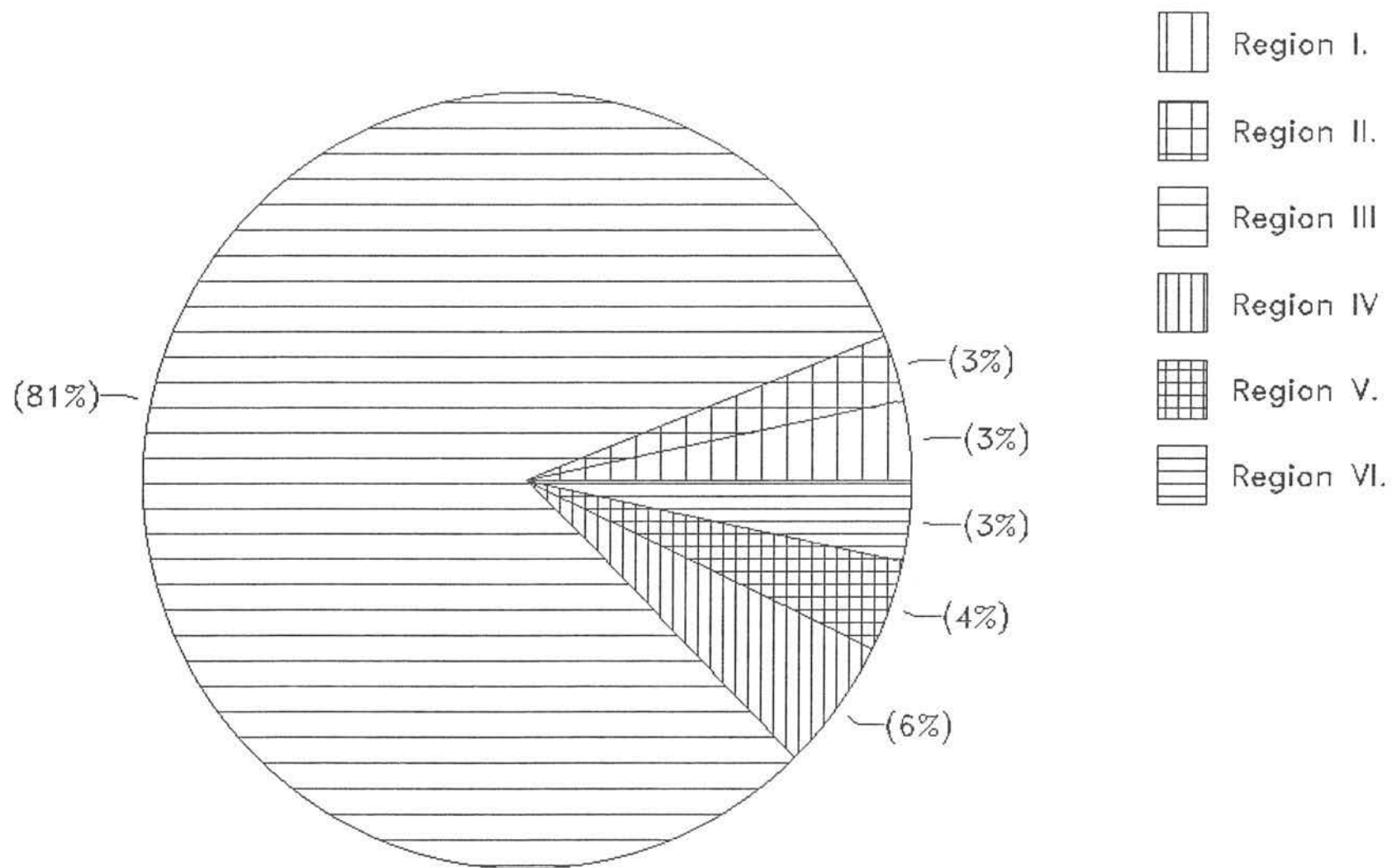


Figure 5

# OREGON POPULATION ANALYSIS 1990



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Figure 6  
Cities Larger than 15,000

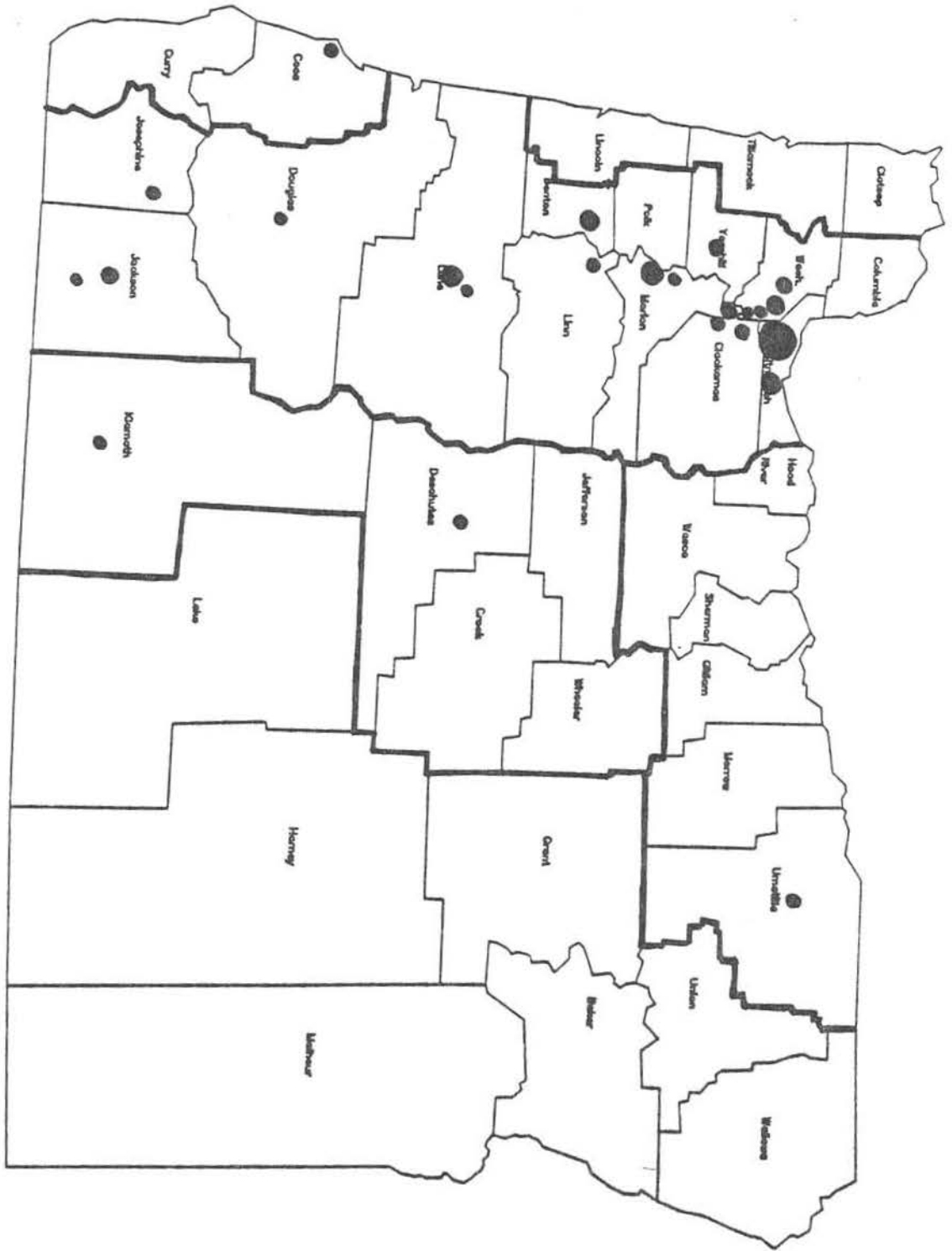
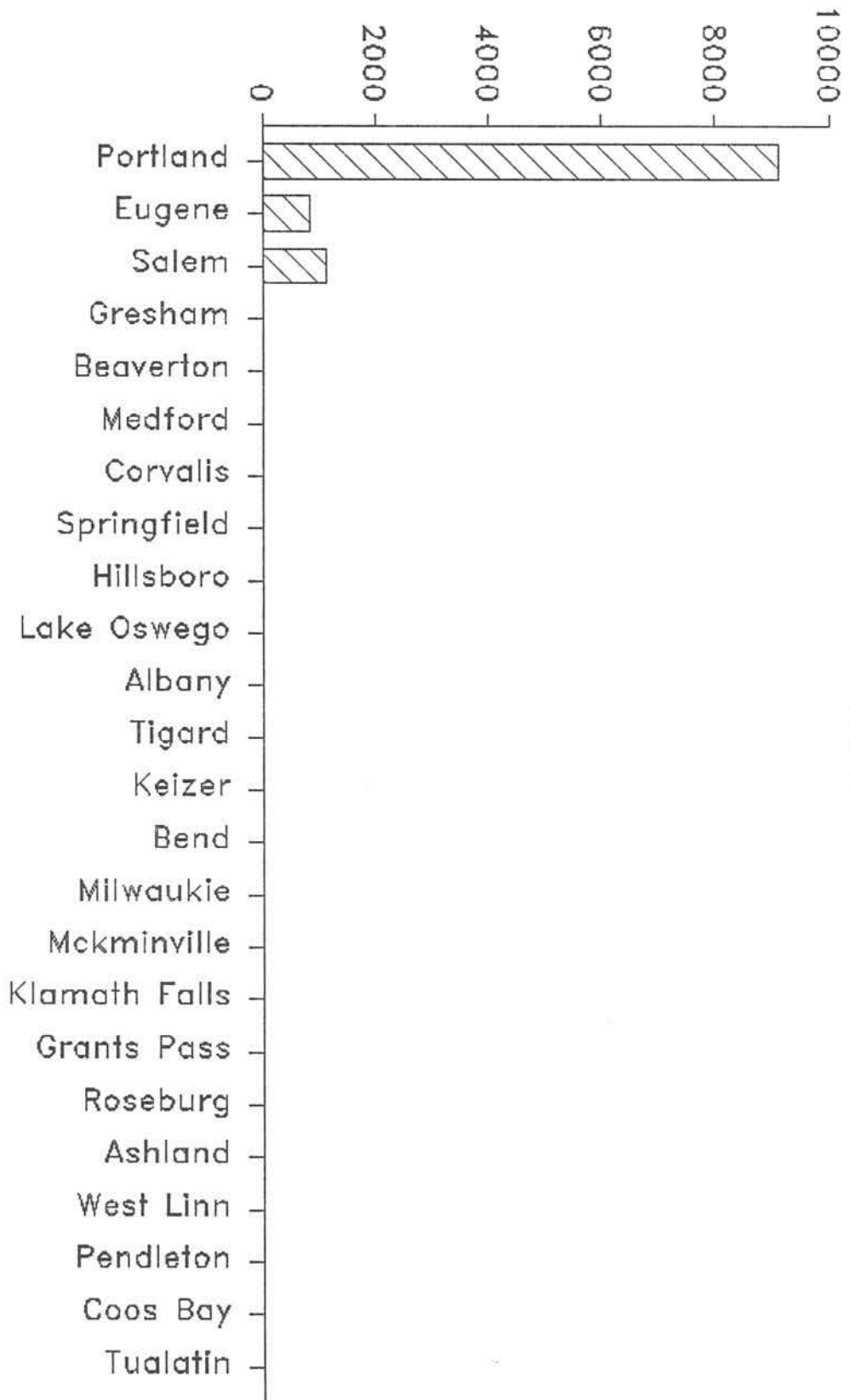




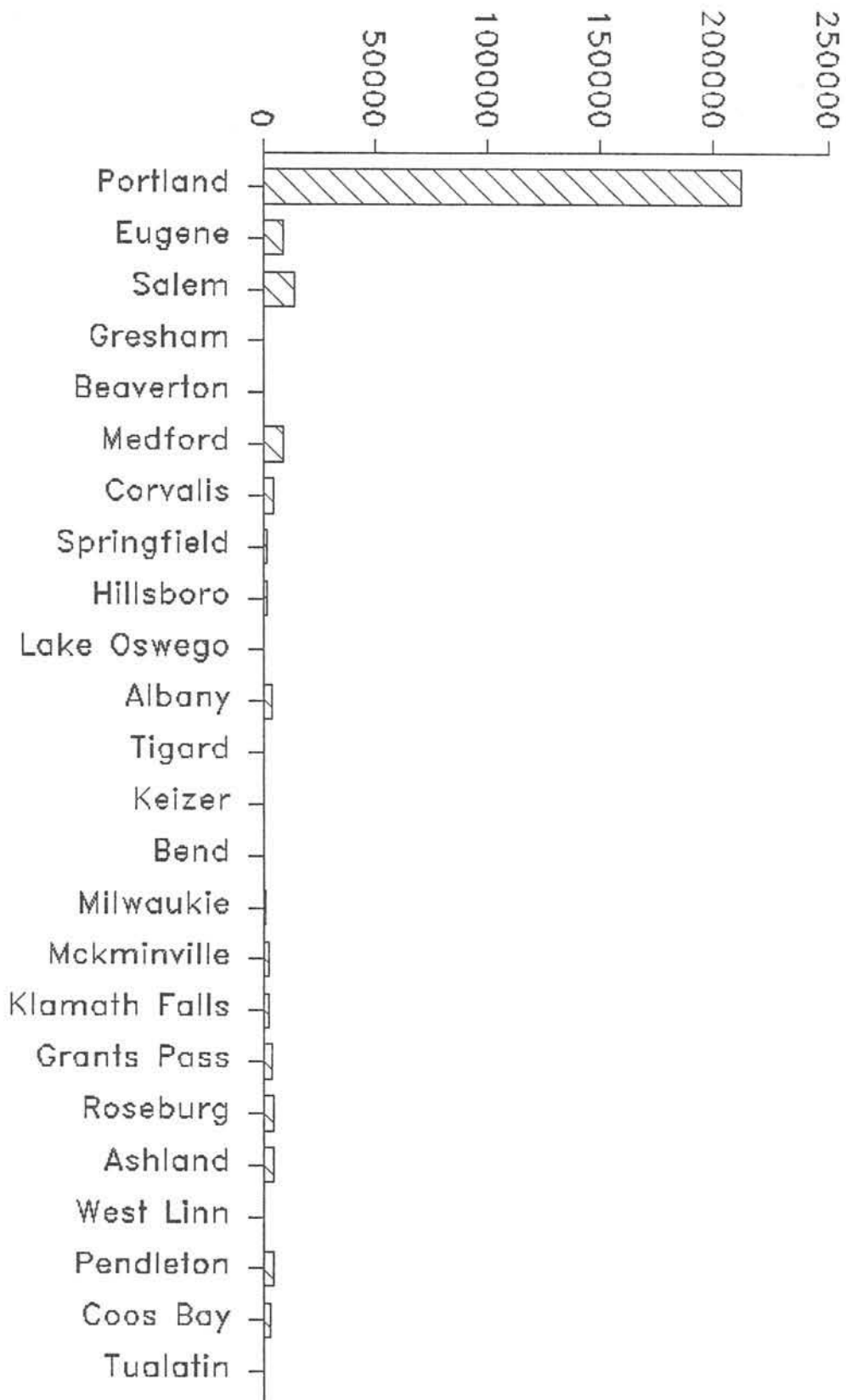
Figure 7

# 1990 Twenty Four Largest Cities 1870



# 1990 Twenty Four Largest Cities

Figure 8



# 1990 Twenty Four Largest Cities 1950

Figure 9

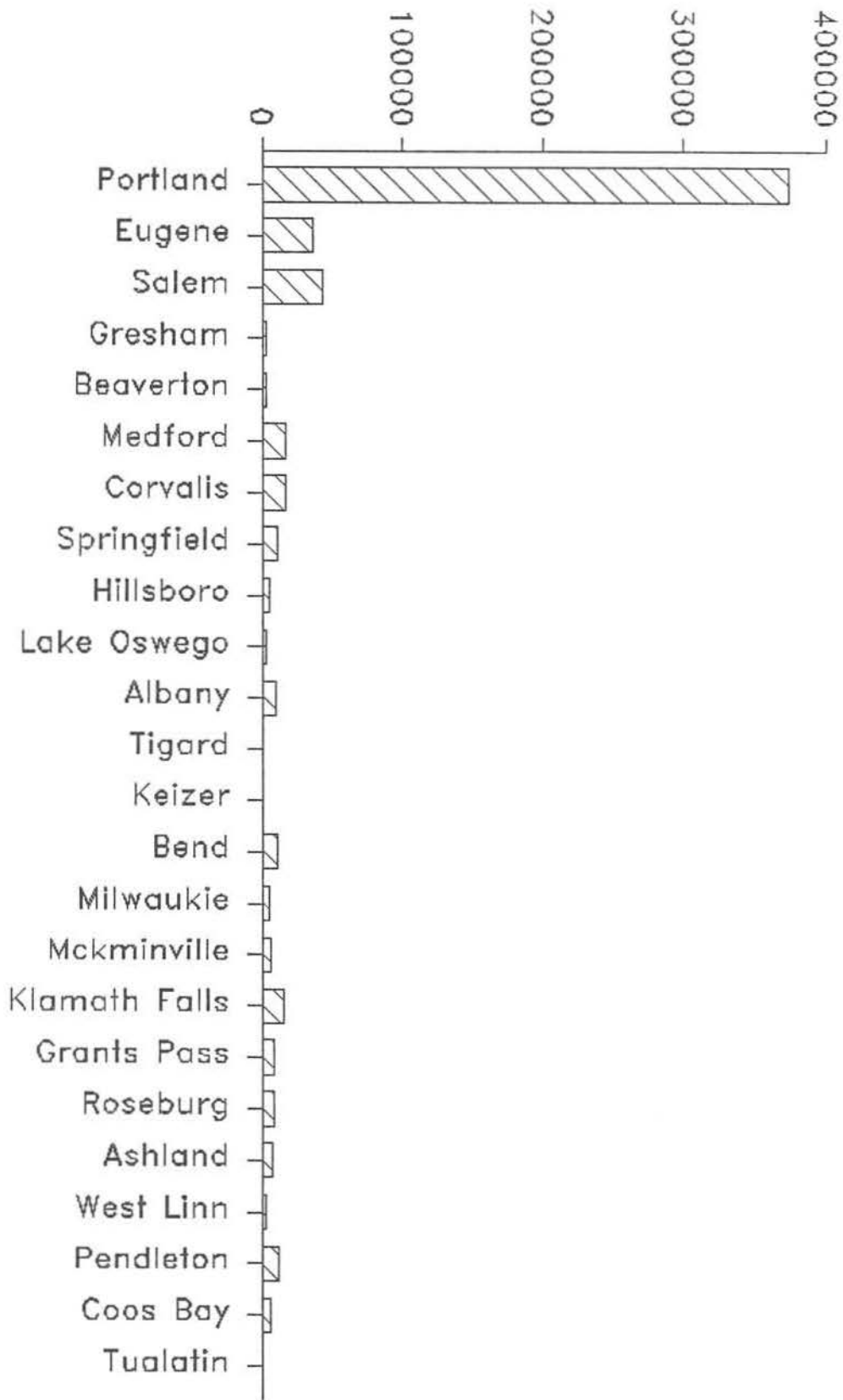


Figure 10  
 1990 Twenty Four Largest Cities

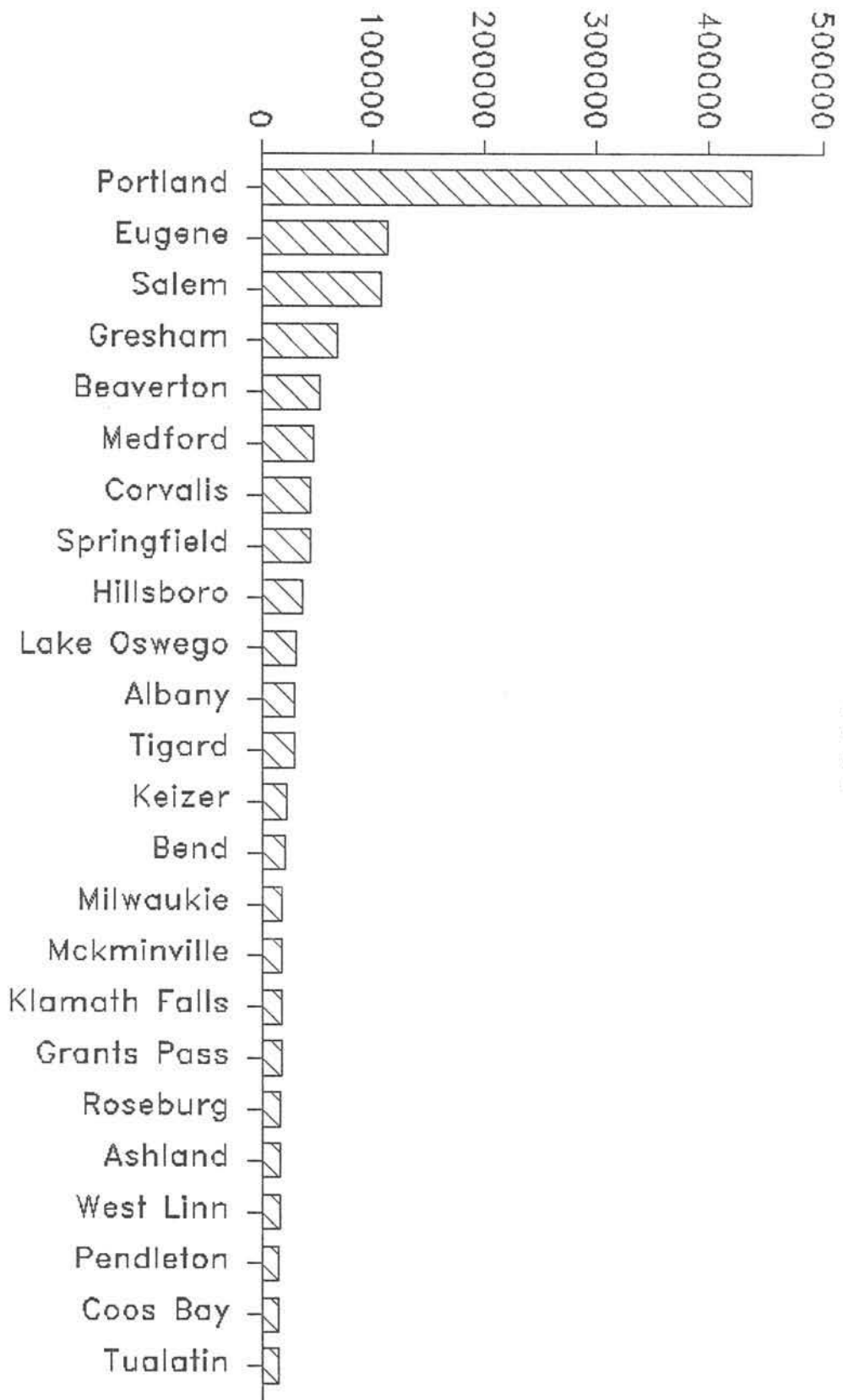




Figure 11  
Metropolitan Population as % of Total  
1870-1990

