ROTC SERVICE COMMITMENTS: A COMMENT ON THOMAS AND BIERMAN'S PAPER IN PUBLIC CHOICE (Fall 1975)

Samuel Kleinman

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CENTER FOR NAVAL ANALYSES
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ROTC SERVICE COMMITMENTS: A COMMENT

In a recent note in this Journal, Thomas and Bierman argue that the military should consider reducing the minimum service requirement for ROTC candidates. Although we agree that the services should consider the trade-off between accessions and minimum obligated service, we find no theoretical basis for the authors' contention that "supply" will be increased and that there will be a higher quality of candidates in the program.

To start, we draw figure 1 with schedules similar to those drawn by Thomas and Bierman. \( q_H \) and \( q_L \) are the "supply schedules" for high quality and low quality candidates, respectively. We have added the schedules vertically, \( q_T \), to obtain the maximum potential accessions per year. The higher is the minimum service requirement (MSR), the lower is the potential number of accessions. For an MSR of \( M_1 \) and demand of \( M_1C \), \( M_1A \), high quality and AC (which is less than \( M_1B \)) low quality candidates are accessed.

![Figure 1](image-url)
Unfortunately, the curves do not directly depict the demand for and supply of newly commissioned officers. The military's demand is properly stated in terms of man-years acquired: that is, the number accessed times their years of service. The demand is for \((OM_1 \times M_1C)\) man-years (assuming no attrition in the first \(M_1\) years and no officers serve beyond MSR). High quality individuals supply \((OM_1 \times M_1A)\) man-years; low quality individuals supply \((OM_1 \times AC)\) man-years. Recognizing that demand and supply is in terms of man-years and not accessions is necessary when calculating the optimal MSR.

If MSR is reduced to \(M_2\), the services must increase the number of accessions in order to maintain the same number of man-years.\(^1\) If \((OM_2 \times M_2D)\) is greater than \((OM_1 \times M_1C)\), then the military can acquire the same number of man-years. The military's "demand curve" in figure 1 (not drawn in) would have unit elasticity. However, if the "supply" of accessions is inelastic with respect to MSR, the military may be unable to acquire the desired number. That is, the increase in the number willing to join the program would not be sufficient to offset the man-years lost because of the lower MSR.\(^2\) Thus, the elasticity of these curves plays a crucial role in determining the optimal MSR.

More importantly, the argument that the services will acquire higher quality individuals is called into question. If \(q_H\) is inelastic in the region of \(M_1\) and \(M_2\), then fewer high quality man-years are obtained. The high quality man-years is \((OM_2 \times M_2E)\), and this would be lower than \((OM_1 \times M_1A)\). Since total man-years acquired is constant, the average quality of man-years is reduced.

Even if the high quality curve was sufficiently elastic and the military was still receiving a suitable return on its investment at \(M_2\), the services may find it optimal

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\(^1\) Thomas and Bierman are clearly aware of this. But they take it for granted that both the quantity and quality of candidates desired will be available.

\(^2\) This assumes that there is some quality, those along \(q_L\) in the example, below which all applicants would be rejected.
to remain at $M_1$. If productivity increases with length of service, more man-years would be needed with $M_2$ than with $M_1$ to maintain the same level of military readiness (the output). The military's "demand curve" would now have an elasticity greater than one. Since the military operates within a manpower constraint, acquiring the additional manpower may not be feasible.

In conclusion, the Thomas and Bierman article is remiss in failing to discuss the elasticities of their accession curves. Since the military's demand is for man-years and not accessions, the magnitude of these elasticities is basic to determining the optimal minimum service requirement. Furthermore, there is no reason to expect that the average quality of the man-years acquired will be higher.

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*Department of Mechanical Engineering, University of Maryland.*


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